The Effects of International Trade on Human Development: A Comparative Analysis of the Association of Southeast Asian Nations (ASEAN) and the Southern African Development Community (SADC)

By

Joseph Gerard Bacani Angeles
Student Number: 61822930

In Fulfilment of the Requirements for the Award of

DOCTOR OF PHILOSOPHY
in
MANAGEMENT STUDIES
(International Business)

At the
UNIVERSITY OF SOUTH AFRICA

Research Supervisor:
Professor Rafiu Adewale AREGBESHOLA

January 2021

DECLARATION

I, **Joseph Gerard Bacani ANGELES**, Student Number **61822930**, declare that:

The Effects of International Trade on Human Development: A Comparative Analysis of the Association of Southeast Asian Nations (ASEAN) and the Southern African Development Community (SADC) is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Signed:

January 7, 2021

ACKNOWLEDGEMENTS

My profound gratitude goes first and foremost to Professor Rafiu Adewale Aregbeshola for his constant and instructive counsel. He was always there to elucidate when clarity was necessary, to guide when direction was required, and to accompany when camaraderie was called for. His excellence and passion for his craft is an inspiration his students will carry beyond the university halls.

My personal thanks go to the University of South Africa, especially to the College of Economic and Management Sciences, and to its team, particularly its librarians. The professionalism with which they guided me was instrumental, especially at the journey's start when everything seemed so voluminous. Their skill and patience helped me through the labyrinth of materials that could confound a researcher in today's myriad of data.

My deep appreciation also goes to Dr Marici Snyman and Prof Elana Swanepoel, two wonderful ladies of the academe with whom incisive discussions over lunch were instructive, and witty conversations over dessert refreshing. They started as valuable guides, and ended up as invaluable friends.

My most special thanks go to my family. The love and encouragement of my wife, Atty Cecilia Jover Angeles, was the foundation upon which this work was built. Conversations with my daughter, Francesca J. Angeles, about cartoons which she loves so much, were my rest and resuscitation. The gentle inquiries of my mother, Josefina B. Angeles, about how my doctorate studies were going, were the tender nudges that carried it to completion.

This is for them, and in memory of my father, Dr Ruben E. Angeles, the Founder-President of the Davao Scholarship Trust Foundation. He valued education more than wealth.

ABSTRACT

This study analysed the effects of international trade on human development in two developing regions, the Association of Southeast Asian Nations (ASEAN) and the Southern African Development Community (SADC). The choice of comparing SADC and ASEAN is motivated by the many similarities between both regions half a century ago, and the stark divergence of their respective development pathways which has led to different development outcomes half a century later. Annual data from 2000 to 2018 and dynamic panel data econometric techniques were used in this study, controlling for individual country characteristics, endogeneity, serial correlation, heterocedasticity and interdependencies between the countries in each region. Two estimations were done in this study; sample wide estimations and country specific estimations. In the sample wide estimations the Generalised Method of Moments of Arellano and Bover (1995) with forward orthogonal deviations, and Feasible Generalised Least Squares of Parks (1967) and Kmenta (1986) were used, whilst Swamy's Random Coefficients were used in the country specific estimations. Trade is measured using the current account balance as a percentage of GDP, whilst human development is captured by the United Nations' Human Development Index (HDI). In the sample wide estimations, the study found that trade openness enhances human development for both SADC and ASEAN as measured by the Human Development Index (HDI). Gross fixed capital formation, economic growth and technological progress all had positive effects on human development in both regions. Unemployment had a counter intuitive positive effect on human development. This raises issues on the nature and quality of employment, including concerns on cheap production labour and vulnerable employment. The ASEAN region had a higher mean level of economic growth, a trade surplus and higher level of technological progress than SADC. This is consistent with the manufacturing focus of ASEAN, compared to the primary commodity exporting nature of SADC which had a trade deficit. However, in each region there were country specific differences in terms of what drives human development. The country specific disparities in drivers of human development have implications for the regional trade and development nexus. In particular, these disparities must be considered in the conceptualization and implementation of the SADC Industrialisation and Strategy Roadmap, and the most recent African Continental Free Trade Area. The policy implication is that such regional trade agreements should accommodate countries' specific heterogeneity as the policy pathways will differ between countries.

Keywords: International Trade, Human Development, Association of Southeast Asian Nations, Southern African Development Community, Feasible Generalised Least Squares (FGLS) Estimation Approach, Generalised Method of Moment (GMM) Estimation Technique, Human Development Index (HDI), Per Capita Income

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS

ACET – African Centre for Economic Transformation

AEC – ASEAN Economic Community

AERC – African Economic Research Consortium

AfCFTA – African Continental Free Trade Agreement

ASEAN – Association of Southeast Asian Nations

EU – European Union

GATT – General Agreement on Tariffs and Trade

GVC – Global Value Chain

HDI – Human Development Index

HPAE – High Performance Asian Economies

ILO – International Labour Organization

IMF – International Monetary Fund

SADC – Southern African Development Community

MDG – Millennium Development Goals

NIC – Newly Industrialized Country

NTI – Nuclear Threat Initiative

OECD – Organization of Economic Cooperation and Development

RCEP – Regional Comprehensive Economic Partnership

RISDP – Regional Indicative Strategic Development Plan

RTA – Regional Trade Agreement

SACU – Southern African Customs Union

TPP – Trans Pacific Partnership

UN – United Nations

UNCTAD – UN Conference on Trade and Development

UNCTAD TDB – UNCTAD Trade and Development Board

UNDP – UN Development Programme

UNECA – UN Economic Commission for Africa

UNODC – UN Office on Drugs and Crime

USAID – United States Agency for International Development

WEF – World Economic Forum

WIPO – World Intellectual Property Organization

WTO – World Trade Organization

Chapter 1
Introduction and Background to the Study

1.1 Introduction

The modern world is increasingly characterized by interdependency, whereby the fortunes and misfortunes of countries are increasingly dependent on the fortunes and misfortunes of their neighbours, regional communities, and the global community. The path that the world's community of nations have increasingly taken towards singularity is summed up in one word: globalization.

Regardless of the level of economic growth a country may already have achieved, governments pursue policies that are designed to enhance economic performance to ultimately improve the quality of life of their citizens (Aregbeshola, 2017a). For many countries in Africa and Asia, improving human development remains as the single, most persistent, and most important challenge, as measured through the Human Development Index (HDI). The HDI is a measure of achievement in three key factors of human development, specifically length and quality of life, education, and standard of living (United Nations Development Program [UNDP], 2019b). When countries seek to achieve a higher HDI for their citizens, the solutions lie decreasingly entirely within the internal confines and structures of the state, and increasingly on how that country interacts with other countries on the global stage. This requires a complex understanding of the interplay of political, social, economic and ideological interests, among many others. Their dimensions change on an almost day-to-day basis as current events unfold all over the world.

Among the many aspects of globalization is international trade. While misgivings and anxieties about the globalization of trade are evident from the protest marches that accompany each and every international summit to discuss trade, there is a general agreement, almost taken as absolute truth in certain quarters, that *international trade is a vehicle towards human development through economic growth and prosperity.*

This study determines whether or not this has happened in countries of the South African Development Community (SADC) and the Association of Southeast Asian Nations (ASEAN). It looks at the relationship of international trade and human development. It assesses whether

international trade has, in fact, resulted in widespread improvement of the HDI for the peoples of SADC and ASEAN.

The World Trade Report of 2008 discussed trade in a globalizing world. World Trade Organization (WTO) Director-General Pascal Lamy acknowledged the immense contribution of globalization to international prosperity and stability (WTO, 2008a). Six years thence, this was reaffirmed by the World Trade Report of 2014, which reported that trade can make it easier to achieve not only GDP growth but other societal objectives as well, such as life expectancy, education, and wellbeing: the very components of HDI. WTO Director-General Roberto Azevedo reiterated the strong and important link between trade, development, and the achievement of wider societal goals (WTO, 2014).

Recent sessions of the United Nations Conference on Trade and Development (UNCTAD) cite the importance of harnessing the power of trade to improve lives through strengthened global economic assimilation towards economic development (UNCTAD, 2016). In a note by the UNCTAD secretariat submitted to the body's Trade and Development Board (TDB) in Geneva on September 2017, the positive role of trade in supporting growth was highlighted. The note cited the increasing number of trade agreements that have provisions pertaining not only to trade per se but to social issues as well, which affect human development (UNCTAD, 2017).

However, as integration into a global trading system continues to change the world in an unprecedented pace, many people in the developed world are beginning to feel subjugated by an environment characterized by the seeming disintegration of borders. This has led to public discontent that has fuelled political campaigns and has behoved governments to rescind commitments to international trade (Baker, 2017; Trump, 2017).

During the campaign for the United States presidential elections on 8 November 2016, then United States presidential candidate Donald J. Trump criticised international trade deals, capitalizing on a wave of popular resentment and distrust over the effects of globalization. Upon winning the election, President Trump made good his word. In a Memorandum dated 23 January 2017, he withdrew the United States from the Trans Pacific Partnership (TPP), a multinational trade agreement between twelve Pacific Rim countries including the United States (Trump, 2017).

A similar sentiment against globalization played out earlier in the United Kingdom. In a referendum on 23 June 2016, the United Kingdom voted to leave the European Union (EU), a path of withdrawal which has since been nicknamed Brexit. While a study found that most

Britons who voted for Brexit did so because of immigrant prejudice (Lowe, 2017), economics also played an important role. Brexit supporters argued that the EU had continuously failed to address its economic problems, including swelling unemployment. The argument was that the economic tribulations that hound EU would infect the British economy, hence the need to exit the regional integrative arrangement (Mauldin, 2016). The deep well of antipathy felt by British workers towards international trade, caused particularly by a perception that international trade causes loss of jobs in developed countries because of cheap wages in developing countries, was replayed in the United States. When President Trump announced the withdrawal of the United States from the TPP to union leaders, his protagonists broke into applause (Baker, 2017).

The withdrawal of the United States and the United Kingdom from TPP and EU respectively is a dramatic turnaround from both countries' traditional, bipartisan trade policy of promoting Western leadership in free trade. Many think that these events are more political rather than trade-related, and there has been no widespread withdrawal of support for globalization. Thus, UNCTAD predicts that despite these setbacks, the pivotal role of international trade in the development path of the great majority of countries in the world, and the aspiration for consequent improvement in human development, will continue (UNCTAD, 2017).

That being said, the withdrawal of two of the most economically and politically powerful nations in the world from international trade certainly befits a re-evaluation of the economic mantra that *opening your borders to international trade is beneficial.* Even as anxiety towards opening borders persists, economic planners in developing countries remain concerned that missing out on international trade will result in marginalisation in a global economy. Seeking to duplicate the success stories of countries which have benefited from trade with other nations, many developing countries today have taken the path of promoting international trade as a vehicle towards human development and prosperity. Among these countries are the members of SADC (SADC, 2019) and ASEAN (ASEAN, 2019).

Economic theory identifies several models to explain the causes of and gains from trade. There are likewise several standard measurements to assess development, growth and wellbeing. A number of macroeconomic theories provide this study's theoretical framework, including Keynesian aggregate demand theory, and the endogenous growth models espoused by Robert Solow. A detailed understanding of these theoretical frameworks suggests that international trade affects human development in varied ways, including its impact on economic growth (Ortiz-Ospina, 2018), its favourable effect on the poor, who tend to spend in traded sectors

(Fajgelbaum & Khandelwal, 2014), its influence on employment creation, and ultimately, its ability to improve living standards and enhance wellbeing (World Bank, 2018b). These concepts provide the theoretical framework upon which this study proceeds.

This research explores international trade and its effects on human development. It begins by revisiting the theoretical constructs of international trade, the economic factors that drive it, and its supposed benefits. The study then progresses to compare the experiences of SADC and ASEAN, and examines how international trade has affected human development in these sampled regions.

1.2 A Synopsis of the Relational Impact of International Trade on Human Development

This section provides a synopsis of the relational impact of international trade to development. A more substantive discussion is presented in Chapter 2.

International trade has a direct relational impact to development. UNCTAD (UNCTAD, 2016) cites trade as essential for achieving global, sustainable growth, creating jobs and income opportunities, upgrading technology and diversifying and transforming economies through capital formation, and reducing inequality among different sectors within a country as well as between countries.

1.2.1 Human Development Index (HDI)

HDI is an average measurement of three key dimensions of human development: a long and healthy life; access and affordability of knowledge; and a decent living standard. The HDI is the geometric mean of the normalized indices of these dimensions (UNDP, 2019b). The Human Development Report of 2019 (UNDP, 2019a) conveys the inequality of human development of a swiftly changing world. According to this report and as corroborated by other scholars, trade affects human development in varied ways: through economic growth (Bloomfield, 1975; Myint, 1977; Ortiz-Ospina, 2018; Schumacher, 2012) and employment creation that ultimately enhances wellbeing and living standards (Fajgelbaum & Khandelwal, 2014; World Bank, 2018b).

1.2.2 Economic Growth and Development

International trade is a significant factor in higher real GDP and economic growth (Ortiz-Ospina, 2018; World Bank, 2018b). More robust economic growth continues to be the main

motivation of practically all initiatives towards regional economic integration (Madyo, 2008). Economic integration leads to substantial benefits, including creation of employment and economic growth (Sekyere, 2017). International trade remains an integral part of the global partnership for sustainable development (UNCTAD, 2016). According to these authors, international trade is indispensable in the realism of a nation's attainment of growth and development, especially human development that ultimately adds value to a nation's prosperity.

1.2.3 Employment and Income

The positive effects of trade openness to the labour sector are usually discussed in terms of more employment opportunities and higher income resulting from a strengthened manufacturing sector in competitive industries, as well as the resultant attractiveness to foreign investment. Trade has a substantially large and vigorous positive effect on income (Romer and Frankel, 1999); and by extension, multinationals (globally-engaged firms) have higher employment growth than their counterparts which are not involved internationally (Dunne et al., 2009). The significant income growth achieved by developed countries since the 1950s is believed to have been made possible by openness to trade and a consequent attractiveness to inflow of investment - a model followed successfully by the dragon economies of East Asia (WTO, 2008a). Moreover, international trade is particularly beneficial to the poor who spend substantially on traded sectors (Fajgelbaum and Khandelwal, 2014). Trade liberalization lowers factory gate prices and promotes competitive effects, such as lower prices and more variety in choices, thereby increasing real income (De Loecker et al., 2016).

1.2.4 Capital Accumulation

Capital accumulation refers to the addition made to existing stock of capital in a given period of time. It refers to both physical capital stock such as machinery as well as non-physical capital or human resources such as public health, efficiency, craft and skills. Capital formation increases the inventory of capital goods, which raises the level of production and accelerates the pace of development (Suman, n.d.). In line with this argument, opening of economies to trade has the effect of accelerating capital accumulation particularly in higher savings countries (Tsuyoshi et al., 2019)

1.2.5 Technological Progress

The enhancement in the quality of life made possible by the application of developments in technological innovation towards the integration of international operating environments cannot be underscored enough (Aregbeshola, 2017b). According to this author, trade openness creates incentives for investment, which can dramatically affect an economy's rate of growth. This is particularly so because multinational corporations undertake more innovation by virtue of their resource dexterity (Mattes, 2015). Innovation increases even among firms that are affected by imports due to trade liberalization. By extension, import competition leads to increased innovation within firms, and it causes the movement of employment from less to more technologically advanced firms (Bloom et al., 2016). As such, technological advancement increases returns on assets and capital. Moreover, additional investments on technology are not absolutely necessary, essentially in situations whereby proper utilization of existing equipment with a focus on cost efficiency already contributes to performance (Binuyo and Aregbeshola, 2014).

1.3 The Problem Statement

In the material presented earlier (in section 1.2 above) the argument was raised that trade has been linked with economic and human development and the attainment of societal goals. Openness to trade is generally accepted to have been crucial in the rapid growth and the resultant reduction of unemployment, increased incomes and improvement of welfare in East Asian countries (WTO, 2008a). Seeking to traverse a similar path, both ASEAN and SADC embarked on improving international trade as a means of attaining economic growth and human development. In addition, high levels of national debt in developing countries gradually led to a re-orientation of development outlook away from aid and external borrowing towards trade, economic growth, job creation and internal mechanisms that can steer development and alleviate poverty from within (International Monetary Fund [IMF], 2020).

There are concerns, however, and perhaps the greatest source of anxiety is how openness to international trade will affect the job market. Many are apprehensive of globalization because of suspicions of its adverse effects on cherished goals such as employment, rights of workers, and cultural identity, even as they acknowledge its positive effects to national income (Frankel, 2007).

These concerns are validated by no less than two of the most economically powerful states in the world. In a plebiscite on 23 June 2016, the United Kingdom chose to withdraw from the EU for economic reasons (Mauldin, 2016). Across the Atlantic, another powerful nation has chosen to likewise leave a similar partnership. Swayed by a focus on reducing its national deficit, the United States on January 2017 announced its decision to withdraw from the TPP (Trump, 2017).

In view of these developments, the problem that now arises is determining whether or not the concept that improved international trade is beneficial and results in the achievement of human development, particularly in SADC and ASEAN, is validated by the empirical evidence.

While there exists research on the economic growth experiences of Southeast Asia and Africa, there is limited literature focused on SADC and ASEAN. There is insufficiency in studies dedicated to the relative experience of SADC and ASEAN, and the individual countries that comprise these organizations.

This current study bridges the abovementioned gap in the literature. The outcome could provide guidance in navigating the course by which SADC and ASEAN can harness international trade in advancing human development.

Section 1.8 further discusses the motivation for this study, while the body of literature that provides existing research on the growth experiences of Southeast Asia and Africa are discussed in Chapter 3.

Human development in this study is captured by the United Nations (UN) HDI, which is a composite variable encapsulating life expectancy, education and wellbeing (UNDP, 2019b). The impact of trade on human development is researched in this study, controlling for some additional factors that also affect trade and the economy, including per capita income, capital accumulation, unemployment, and technological progress.

The dynamics of their relationship with trade are described in the theoretical framework in Chapter 4 of this study.

1.4 Research Questions

Towards addressing the problem statement, this research poses the following general question:

- Has international trade in SADC and ASEAN enhanced human development?

This main research question encompasses the following sub-questions:

- How has trade related to human development in ASEAN and SADC?
- Are there any differences between the ASEAN and SADC regions in the role trade has played in enhancing human development?
- What are the similarities in the experiences of the two regions and why are there such similarities?
- Are there any country specific differences from the generalisation that trade should enhance human development?
- What role do other macroeconomic variables that relate to trade and also impact on human development play in enhancing human development in the two regions of ASEAN and SADC?
- What are the policy implications of the findings of this study for the trade and development policy nexus in ASEAN and SADC?
- Should there be country specific differences in outcomes, what does that mean for regional trade agreements and regional trade policy outlook?

1.5 Research Objectives

The main objective of this research is to establish empirically whether international trade has resulted in human development in SADC and ASEAN.

The research sub-objectives are to:

- analyse the relationship between trade and human development;
- establish whether there are any differences in the experiences of ASEAN and SADC in how trade has impacted on human development;
- ascertain if there are also any similarities in the experiences of the two regions and what drives such similarities;
- investigate the role of other variables that also affect trade and human development, including per capita income, capital formation, employment, and technological progress.
- explore what the policy implications are for the findings emanating from the study, and what changes need to be made to the trade and development policy outlook in ASEAN and SADC; and

- suggest what country specific differences emanating from the findings of this study mean for regionalism in trade and development policy outlook.

Section 1.7 gives an overview of how the research objectives will be achieved and of the methods that would be deployed.

1.6 Research Hypotheses

This study tests the following hypotheses (Table 1.1), which were formulated to address the research question.

Table 1.1 Proposed Research Hypotheses

Indicator	**Determinants**	**Hypothesized Effects**
Human development	Trade	Positive or negative, depending on what is traded in, primary commodities or value added products.
	Per capita income	Positive
	Capital accumulation	Positive
	Unemployment	Negative or positive, depending on how technology and knowledge transfer through trade impact on domestic production capacity and therefore job creation
	Technological progress	Positive

Source: Author's proposed hypotheses

Table 1.1 proposes the following hypotheses:

There is a direct positive relationship between HDI and international trade, per capita income, capital accumulation, and technological progress. Unemployment is an exception, which is expected to have a negative coefficient.

1.7 Overview of the Research Methodology

The overview of the research methodology outlined in this section is introductory in nature, to describe the methods that will be deployed to achieve the research objectives. Chapter 4 provides the comprehensive discussion on Research Methodology.

1.7.1 Theoretical Framework

The theoretical framework for this study involves Keynesian aggregate demand theory and the endogenous growth models of Robert Solow. Within this framework, the diverse ways through which trade affects human development is analysed, as well as the relationship with other variables that also affect trade and human development including per capita income, capital accumulation, employment and technological progress.

1.7.2 Data Sources

Annual data from the World Development Indicators of the World Bank (World Bank, 2020c) and the UN (UNDP, 2019b) from 2000 to 2018 were utilised in various econometrics environments adopted in this study.

1.7.3 Methodology

The dataset is analysed using three distinct steps: (1) initial diagnostics of the dataset, (2) model specification and estimation, and (3) post-estimation diagnostics. Initial diagnostics of the dataset is done in two phases. The first phase involves probing for longitudinal trends. This includes a visual inspection using a scatter diagram, descriptive statistics and pairwise correlation analysis. The second phase tests for the panel data characteristics of the dataset. This includes testing for the validity of individual country effects and any time specific experiences that is unique to any of the countries in the dataset.

Model specification and estimation specify two types of models, either a one way or a two way error component model. The findings of the initial diagnostics of the datasets thus determine the type of model specified and the estimation methodology employed. Furthermore, the post-estimation diagnostics were adopted to confirm if the results are acceptable or not. These

diagnostic techniques are further explained based on which estimation approaches were used to estimate the dataset.

1.8 Motivation for the Study

There are existing comparative research on the economic growth experiences of Southeast Asia and Africa. Much of this comparative research came as a result of the report "The East Asian Miracle: Economic Growth and Public Policy" (World Bank, 1993) which identified lessons that Africa might learn from the Asian development experience. This body of literature is discussed in Chapter 3.

That being said, there is limited literature on research that focus on the comparative experience of SADC and ASEAN in utilizing international trade to improve human development. This is the deficiency that motivates this research, particularly because the year 2020 is SADC's 33rd anniversary, and ASEAN's 53rd. A current and thorough review of ASEAN and SADC's comparative international trade performance and an examination of the empirical evidence as to whether this has resulted in human development and better welfare of their peoples is thus timely.

This is because half a century ago, both Asia and Sub-Saharan Africa had just emerged out of colonial rule as peasant farmers. Fifty years down the line, the ASEAN region has evolved to become more developed than its African counterpart. Although both regions resorted to export-led economic growth and development through international trade, their growth trajectories have been very different, leading to disparities in development outcomes. While Asia today is known for its manufacturing and value added exports, Africa still trades in primary commodities. There has been a considerable amount of research and academic writing on international trade and development, stimulated at least in part by the seeming success of countries that have embarked on this path. These studies delve into the interrelationship of international trade and improvement of the human condition. They, however, take into account the global experience, ignoring the fact that the level of success of individual countries and groups of countries differ. Herein lies the insufficiency: the focus on the relative experience of regions like SADC and ASEAN, and the individual countries in these regions. This merits the case for sharpening the lens to focus on individual regions and countries such as SADC and ASEAN, looking at the specific experiences of the countries in these regions, and comparing how the regions fared in comparison to each other.

These gaps motivate this research. The outcome of the comparison could suggest ways through which SADC and ASEAN, two important regional organizations in Africa and Asia, can improve human development of their peoples via international trade.

Additionally, a focused look into the individual members of SADC (Angola, Botswana, Comoros, Democratic Republic of Congo, Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia and Zimbabwe [SADC, 2012]) and ASEAN (Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam [ASEAN, 2020a]) could provide country-specific insights towards improving human development via international trade.

1.9 Limitations of the Study

The focus of this study is to empirically gauge the results of international trade in terms of human development in ASEAN and SADC. The study deals only with certain highlighted parameters, due to data limitations and extreme data gaps for some countries and variables. It is therefore not possible to exhaust all indicators, historical facets, current events, future development plans, and all other aspects that may have a bearing on how SADC and ASEAN members performed in international trade, and how welfare parameters have responded. Variables such as regulatory frameworks, institutional reforms, and ebbs and flows in the political and economic leadership of the member-countries and the effects of their leadership styles are difficult to measure empirically, and are thus disregarded in this study.

Human development is measured by the UN's HDI, which is a composite variable consisting of life expectancy, education, and standard of living. Additional variables that also affect trade via economic productivity, including capital formation, technological progress, income and unemployment are also explored in the estimation of this relationship. There is also the limitation of causality. Inferences are drawn based on results from empirical estimation of the dataset, but isolation of variables from other influences that affect international trade and human development is far beyond the scope of this study. With the event and expansion of globalization, the practice of comparing data among countries has become more prevalent. However, it should be noted that comparing data has inherent limitations caused by, among others, variances in information gathering methods and reporting.

1.10 Organisation of the Study

Chapter 1 provides an introduction and background of the study. It gives a synopsis of the connection between international trade and human development. It sets out the research questions and objectives and gives an overview of the methodology to be used in carrying out these objectives. It also provides the motivation for the study by reviewing previous works that have a bearing on this study and identifies the areas wherein this study moves forward from the existing literature. It concludes with a discussion on the study's limitations in order to further delineate the range that the study covers.

Chapter 2 provides a historical perspective of international trade. It reviews the concepts of mercantilism, trade openness, gains from trade, and the theories of absolute and comparative advantage as the prime movers from trade restriction towards market liberalization. It concludes with a discussion on continuing challenges to free trade, particularly through instruments of trade restriction.

Chapter 3 begins with a discussion on Asia and Africa, particularly in the context of historical similarity and developmental divergence. It then sharpens its lens to focus on SADC and ASEAN, drawing on comparisons of historical foundations and key policies on international trade and development.

Chapter 4 covers research methodology. It presents the theoretical framework for the study, explains the choice of analytical models, and defines the variables used. On the basis of the theoretical framework, the type and sources of the data-variables are described, as well as the motivation for choice of data. This chapter also describes the methodology by which the data is analysed, specifically initial diagnostics of the dataset, model specification and estimation, and post estimation diagnostics.

Chapter 5 presents the empirical results of estimating the datasets using dynamic panel data estimation approaches. The dataset is estimated at two levels: the first estimation entails sample-wide estimations, and the second estimation delves into country-specific analysis to address heterogeneity of the dataset.

Chapter 6 concludes. It recapitulates the main findings of the research, identifies the contributions of the study, and discusses the significance of the findings particularly in terms of policy implications. The chapter closes with a brief presentation of recommendations on possible further corollary research that may be engaged to take the learnings even further.

Chapter 2

The Concept of International Trade and Market Liberalization

2.1 Introduction

This chapter looks at the history of international trade, from mercantilist policy to the age of liberalization and openness to trade. It looks at the necessity of engaging in international trade and at the reasons and instruments that limit engagement in trade. This chapter starts with the theoretical framework of mercantilism, and moves on to the theories of absolute and comparative advantage which have remained the seminal bases for engagement in international trade. This is followed by a discussion on instruments of trade restriction and the rationales thereof. Throughout the chapter, the effects of the different trade theories and policies on human development and welfare are discussed. A chapter summary concludes.

2.2 From Mercantilism to Free Trade

The wide variance among countries – from dissimilarities in natural endowments to differences in levels of skill, technology and development – make trade among them an essential aspect of modern existence. Many nations today would not be able to meet the demands for food, clothing, or shelter for their citizens at the levels they are accustomed to without trading with other nations. Putting aside very few exceptions (e.g. North Korea), all countries are participants in the international trading system, and the amount of international trade is constantly increasing (Schumacher, 2012).

Freely trading with other countries was not always looked upon with favour. Following a policy of economic nationalism, western European economic strategy from the sixteenth to the late eighteenth century was dominated by mercantilism, which sought to restrain imports and encourage exports. During this time, the medium for international commerce was gold. European states demanded gold as payment for their exports to other states, and in turn paid in gold for whatever goods and products they imported from other states (Mankiw, 2015). The possession of sizeable reserves of gold was therefore necessary to acquire whatever the state needed but could not produce. The wealth of nations was measured in terms of the gold it had in its coffers, and the accumulation of gold through a positive balance of trade was the aim of international trade policy (LaHaye, 2002).

Even today, many government regulators still view the attainment of trade surpluses by maximizing exports and minimizing imports as a beneficial goal, a policy known as neo-mercantilism. Politicians and economic gurus criticize imports for destroying domestic jobs and extol exports for creating jobs (Mankiw, 2015). Since its inception, neo-mercantilism as an alternative development ideology continues its popularity globally, including in Africa (Okeke, 2018).

2.3 Adam Smith and the Theory of Absolute Advantage

In 1776, Adam Smith, a political economist who is recognized by many as the originator of modern economics (Shaw, 2000) challenged the mercantilist view. Smith's seminal work, An Inquiry into the Nature and Causes of the Wealth of Nations, was an attack on the mercantilist view (Petrella, 1968). Smith propounded that a country which minimized imports by producing goods that it was not able to produce as efficiently as another country wasted its resources, and thereby reduced its wealth. Conversely, a country that imported such goods instead of producing them would preserve and thus increase its wealth.

Smith's absolute advantage principle states that trading countries can have more goods if each country produced only products in which it has an absolute advantage, or that it can produce using fewer resources, or at lower cost, than the other country, and engaging in trade for the others (Smith, 1981 [1776]). This principle is illustrated in Tables 2.1 to 2.3.

Tables 2.1 to 2.3 are based on a practical scenario: consider two nations, A and B, and two products, toothpicks and nails. Suppose country A is more efficient in producing toothpicks than country B, and country B is more efficient in producing nails than country A. This is because it takes less hours to produce toothpicks in country A than in country B, while it takes less hours in country B to produce nails than country A under the same conditions.

Table 2.1: Absolute Advantage in Unit Labour Requirements

	Toothpicks	Nails
Country A	$A_t = 1$	$A_n = 4$
Country B	$B_t = 4$	$B_n = 2$

Source: Author's scenario

In this simple numerical example, it takes 1 hour in Country A to produce a toothpick (A_t=1), and four hours to produce a nail (A_n=4). In country B, it takes 4 hours to produce a toothpick

(B_t=4) and 2 hours to produce a nail (B_n=2). From this practical scenario, it is evident that country A has an absolute advantage in producing toothpicks, since it takes only 1 hour of labour to produce a toothpick compared to 4 hours in country B. Similarly, Country B has an absolute advantage in producing nails since it takes only 2 hours to produce a nail in country B, compared to 4 hours in country A.

If the countries do not trade, they would produce 10 toothpicks and 6 nails in 8 hours per industry (or 16 hours per country):

Table 2.2: Absolute Advantage, No Trade

	Toothpicks	Nails	Total Labour-hours
Country A	$8/A_t = 8/1 = 8$	$8/A_n = 8/4 = 2$	16
Country B	$8/B_t = 8/4 = 2$	$8/B_n = 8/2 = 4$	16
TOTAL	10	6	32

Source: Author's computations

If, however, each country specialized in the product in which they have an absolute advantage in producing, there would be more products to share. If country A devoted all of its 16 labour hours to producing toothpicks, and country B devoted all of its 16 labour hours producing nails, the production of both products would increase to 16 toothpicks and 8 nails, as shown in Table 2.3.

Table 2.3: Absolute Advantage, With Trade

	Toothpicks	Nails	Total Labour-hours
Country A	$16/A_t = 16/1 = 16$	$0/A_n = 0/4 = 0$	16
Country B	$0/B_t = 0/4 = 0$	$16/B_n = 16/2 = 8$	16
TOTAL	16	8	32

Source: Author's computations

In this case, it would be logical for country A to specialize in toothpicks and for country B to specialize in nails, and then for both countries to trade their products. Trade results in more toothpicks and more nails for both countries to consume, using the same number of labour-

hours. It thus follows that specialization results in economies of scale, which means that more goods are produced by all parties using the same amount of labour (Myint, 1977).

2.4 Human Development and Welfare Gains of Absolute Advantage (Gains from Trade)

Smith's theory of absolute advantage is interwoven with his theory of development (Myint, 1977, Schumacher, 2012). Because of absolute advantage, international trade results in an increase in the value of produce resulting from specialization of labour. This leads to an increase in revenue (Smith, 1981 [1776]).

In addition to creating more value, absolute advantage also positively affects human development, technological innovation, capital accumulation, and overall economic development. Specialization improves the skill of the workforce, and new techniques and machines lead to technological innovation. In practical terms, productivity is increased, the development of technology is motivated, and as a result, economic development is advanced (Myint, 1977). With absolute advantage, international trade leads to an activation of resources and the encouragement of productiveness (Bloomfield, 1975). Moreover, the exchange of goods transmits knowledge and technology among the countries that engage in international trade (Smith, 1981 [1776]).

2.5 David Ricardo and the Theory of Comparative Advantage

The practical scenarios depicted above does not present a perfect macroeconomic reality. What if a country does not have an absolute advantage in any product? Are there still gains from trade? Supporters of free trade answer positively, using the theory of comparative advantage (Schumacher, 2012) which has become one of the most acclaimed theories and firmly held beliefs in economics (Macdonald and Markusen, 1985). The theory of comparative advantage has become the dominant school of economic thought, and forms the basis of neoclassical theory of international trade (Ruiz-Napoles, 2006). In 1817, the British political economist David Ricardo posited that what matters is not absolute advantage but rather relative efficiency. Providing the most important theoretical underpinning of international trade, the principle of comparative advantage states that even if only one country has absolute advantage, it can still be beneficial for two countries to trade as long as one is comparatively more efficient at producing goods or services needed by the other (Ricardo, 2004 [1817]).

Ricardo's theory of comparative advantage is one of the most acclaimed economic theories, and the formulation has become an article of faith in the field (MacDonald and Markusen, 1985). Even if countries do not have absolute advantage, international trade can still be beneficial to them because of comparative advantage (The Economist, 2009). It is precisely these inherent differences among trading countries that result in a trading advantage through specialization, and it is this assumption upon which comparative advantage is based (Buchanan and Yoon, 2002).

Modifying the example on absolute advantage, assume now that country A has an absolute advantage in the production of both toothpicks and nails, and country B has no absolute advantage in any product.

Table 2.4: Comparative Advantage in Unit Labour Requirements

	Toothpicks	Nails
Country A	$A_t = 1$	$A_n = 1$
Country B	$B_t = 4$	$B_n = 2$

Source: Author's scenario

It takes 1 hour in country A to produce a toothpick, and 4 hours in country B. It takes 1 hour in country A to produce a nail, and 2 hours in country B. Country A thus has an absolute advantage over both toothpicks and nails. Based on this new scenario, the instinctive conclusion would be for country A to produce both toothpicks and nails, since it needs less hours than country B to produce both products.

However, under the principle of Comparative Advantage, there are still gains to be realized from trade, because what matters is not absolute advantage, but the ratio of production costs between the two countries. Country A is comparatively more efficient in producing toothpicks, because it can produce 4 times as much toothpicks than country B, and only 2 times as much nails. Similarly, Country B is comparatively more efficient in producing nails.

If the countries do not trade, they would produce the following quantities of toothpicks and nails in 8 hours per industry (or 16 hours per country):

Table 2.5: Comparative Advantage, No Trade

	Toothpicks	Nails	Total Labour-hours
Country A	$8/A_t = 8/1 = 8$	$8/A_n = 8/1=8$	16
Country B	$8/B_t = 8/4 = 2$	$8/B_n = 8/2=4$	16
TOTAL	10	12	32

Source: Author's computations

Through the theory of comparative advantage, Ricardo identifies gains from trade by comparing the composition of output of each country under autarky with the composition of output with trade (Robinson, 1979). Proceeding from the example above, suppose now that Country B would devote all of its 16 labour hours producing nails since that is where it has a comparative advantage. It would then produce 8 nails (at 2 nails per hour) out of the total of 12, freeing up 4 labour hours for country A (at 1 nail per hour) which can be applied to the production of toothpicks where it has a comparative advantage. This would result in a net of 2 more toothpicks for both countries to share. Table 2.6 shows the new production totals.

Table 2.6: Comparative Advantage, With Trade

	Toothpicks	Nails	Total Labour-hours
Country A	$12/A_t = 12/1=12$	$4/A_n = 4/1 = 4$	16
Country B	$0/B_t = 0/4= 0$	$16/B_n = 16/2 = 8$	16
TOTAL	12	12	32

Source: Author's computations

The principle of comparative advantage as presented in this example shows that even if country A has absolute advantage in both toothpicks and nails, it is still advantageous for country B to specialize in nails and for both countries to trade, because overall, they can produce 2 more toothpicks using the same total amount of labour hours than if B did not specialize.

Presented in mathematical ratios, the ratio of the labour required to produce one toothpick to that required to produce one nail in country A:

$$A_t/A_n = 1$$

is lower than in country B:

$$B_t/B_n = 2$$

or

$$A_t/A_n < B_t/B_n.$$

This amounts to saying that country A has a comparative advantage in toothpick production.

Conversely, the ratio of labour required to produce one nail to that of producing one toothpick in country B:

$$B_n/B_t = ½$$

is lower than in country A:

$$A_n/A_t = 1$$

or

$$B_n/B_t < A_n/A_t.$$

This amounts to saying that country B has a comparative advantage in nail production.

A central concern in adopting a policy of opening up to international trade in order to obtain the benefits of comparative advantage is as regards its effects on industries that do not enjoy any form of comparative advantage. The theory acknowledges that there will be sectors that have a comparative disadvantage, i.e. a sector that uses a relatively scarce factor of production (Stolper and Samuelson, 1941).

In Table 2.6, this would be the toothpick industry in Country B. Since Country B has chosen to concentrate production on nails where it has comparative advantage, the toothpick industry will have to migrate to the nail industry. Indeed, a study on American manufacturing plants showed that factory survival has a negative correlation with exposure to low-wage country imports, and that plants are likely to switch industries when exposed to imports from low-wage countries (Bernard et al., 2002).

There are more reasons why countries restrict international trade despite the obvious gains of comparative advantage. These motives form the bases for protectionist policies, discussed in Section 2.7.

Early examples of comparative advantage include the relationship of Europe and the Americas during Europe's rapid industrialization in the 19th century. A key factor to Europe's fast industrial development during this time was the vast expanses of fertile land in the Americas where large quantities of agricultural production could be had to sustain the European population. This allowed European labour to transfer from agricultural to industrial labour, fuelling Europe's industrialization. By the 1870's, only one fourth of British labour was still engaged in the farm sector. Meanwhile, Great Britain imported over one fourth of the world's food and raw materials, and was the world's main exporter of manufactured goods and services related to trade, such as shipping, finance and insurance (WTO, 2008a).

Despite a more intricate trading system since the time of Ricardo, the central insight of comparative advantage continues to be generally accepted. For example, while the rudimentary formulation of comparative advantage is typically illustrated with two countries producing two finished products, the production process in the modern world can be more fragmented, with intermediate inputs, not only finished goods, traded. This, however, does not invalidate comparative advantage theory. On the contrary, fragmentation of production can be the source of additional gains from trade on the same comparative advantage platform. A 2018 study found that countries engaged in Global Value Chains (GVCs) which experience reduced trade costs tend to specialize in the production stage where they enjoy comparative advantage, which in turn results in workers moving to industries and occupations where comparative advantage is present (Lee & Yi, 2018).

Other real market conditions, such as monopolistic power, changing returns caused by changes in production scale, and the continuous and swift advancement of technology, among others, certainly complicate computations, but they do not invalidate comparative advantage's central deduction (WTO, 2008a). Regardless of the change that international trade has undergone, the fundamental principles of the theory of comparative advantage still apply (Krugman and Obstfeld, 2009). The theory of comparative advantage continues to be one of the most successful economic theories, and remains to have enduring recognition as such (Prasch, 1995).

2.6 Human Development and Welfare Gains of Comparative Advantage (Gains from Trade)

Because of comparative advantage, international trade increases the quantity of the objects traded, and thus increases the amount of products enjoyed by the trading countries (Ricardo, 2004 [1817]). For consumers, the availability of a larger quantity means cheaper goods (Schumacher, 2012), which in real terms increases disposable income. Since comparative advantage results in an overall increase in the quantity of the goods produced with the same amount of labour-hours, the trading partners improve their welfare once they start trading (Krugman, 1997).

It may well be noted that the gains realized from international trade because of absolute advantage are also present in comparative advantage. Specifically, international trade still results in an increase in the value of goods produced resulting from specialization of labour. This leads to an increase in the revenue, or income, of its inhabitants (Smith, 1981 [1776]).

As in the case of absolute advantage, international trade from comparative advantage also positively affects human development, technological innovation, capital accumulation, and overall economic development. Specialization in a comparative advantage situation likewise improves human skill and motivates inventive techniques and new machines that boost technological innovation. Productivity is increased and economic development is enhanced (Myint, 1977). International trade based on comparative advantage also leads to an activation of resources and the encouragement of productiveness (Bloomfield, 1975) and lower domestic prices (Organization for Economic Cooperation and Development [OECD], 1985). Moreover, engagement in international trade results in the exchange of goods that transmit knowledge and technology among the participants (Smith, 1981 [1776]).

Because of comparative advantage, poorer countries can still gain from trade even if they do not have absolute advantage in any industry. This is because what is required is merely comparative advantage. Through international trade, poorer countries, which may have a comparative advantage in cheap labour but are uncompetitive in high technology industries, improve the quality of life for its citizens by importing goods which are cheaper to import than produce (Vitez, 2019). The ubiquitous use of cell phones in African countries that do not produce cell phones is an evident example.

Aside from gains from trade via comparative advantage, consumers also obtain gains from market liberalization in terms of lower prices, and consequently stronger purchasing power. Market liberalization causes a decrease in prices not only because the new country source provides a product at lower prices: other countries also exporting the same product also lower their prizes in order to be competitive, resulting in purchasing gains for the consumer. (Amiti et al., 2017).

Competitive firms gain from trade openness through improved market access. A wider buyer base results in increased production, which in turn lowers production costs because of economies of scale. Furthermore, firms that use imported inputs for their products also gain an advantage in the same way that consumers do – through a wider choice of inputs in terms of variety and quality. Country studies confirm that substantial gains are realized following openness to trade, particularly from increased product variety and competition among firms (WTO, 2008a).

Trade also induces technical change and innovation. A study in 2015 on the impact of Chinese imports on innovation across twelve European countries established that the absolute volume of innovation increased within firms affected by Chinese imports. Increased competition posed by Chinese imports necessitated increased technical change within the affected domestic firms. Moreover, employment was reallocated between firms towards those that were more technologically advanced (Bloom et al., 2016).

Related to the innovation-inducing effects of trade, a 2013 study likewise shows that trade induces skills upgrading. Using Belgian manufacturing firm-level data from 1996-2007, Mion and Zhu (2013) analysed the impact of Chinese imports on skills upgrading and found that industry-level import competition from China induced skills upgrading in low-tech manufacturing industries.

2.7 Protectionism and Instruments of Trade Restriction

While economists say that poor countries can catch up with the developed world through free trade, many do not see this happening in the real world, particularly in places like Africa. Many who criticize the WTO and its concomitant advice to open up international markets disagree with the declared positive effects of free trade to welfare. This is manifested in a persistent anti-globalization movement (Schumacher, 2012).

Supporters of free trade say that its effects on welfare have been limited because of trade restrictions. Free trade is supposedly a condition wherein there are no artificial impediments to the flow of goods across countries (Irwin, 1996). Free or liberalized trade is generally distinguished by the absence of government policies that have the effect of regulating international trade, including limitations on imports through tariffs and on exports through subsidies (The Editors of Encyclopaedia Britannica, 2020). It is thus argued that the reason why the theoretical benefits of free trade are not manifested in the real world is because in practice, countries put up trade barriers which weaken the welfare effects of free trade (Schumacher, 2012).

The imposition of protective tariffs, designed to shield domestic industries from foreign competition (Black's Law Dictionary, 1990), was historically the preferred protectionist mechanism of governments. In 1947, the General Agreement on Tariffs and Trade (GATT) began undertaking the reduction of tariffs, and from 1995, the WTO, GATT's successor, moved forward to tackle services, intellectual property, and non-tariff barriers, including health and food safety standards. This is where current challenges to international trade lie, as non-tariff barriers take over tariffs as the main protectionist instrument (Kinzius et al., 2019).

Protectionism is the totality of government policies that are crafted to help domestic producers against foreign competition, whether by increasing the price of the foreign competing product, or decreasing the price of the domestic product, or by limiting the foreign competitor's entry into the domestic market (Abboushi, 2010).

Table 2.7 catalogues often-used protectionist policies, their purpose, and the instruments by which these policy goals are attained. The instruments of trade restriction as listed in the table are cited as examples in achieving a certain purpose. They are interchangeable as they have the same effect of restricting trade.

Table 2.7 Protectionist Policies, Purpose and Instruments

POLICY	PURPOSE	INSTRUMENTS
Protectionist / Neo-Mercantilist	To favour local industries by limiting the entry of foreign imports.	Tariffs Quotas Voluntary Export Restraints
National Defence	To ensure that the state is ready to face calamities and national emergencies such as war, famine and aggression by other states.	Embargo Subsidies International Patent Systems Public Procurement Practices
Job/Income Protection	To protect employment and wages.	Tariffs Quotas Subsidies
Infant Industries	To protect infant industries and allow them time to grow until they are competitive.	Subsidies Anti-dumping legislation
Balance of Trade/ Fair Trade	To minimize deficits in the Balance of Trade / to promote Fair Trade	Tariffs Quotas Voluntary Export Restraints
Health and Safety	To protect health and safety	Regulatory Barriers Product Standards

Source: Author's Compilation

The general reasons for mercantilist/protectionist policies were discussed earlier. More specific reasons for trade-restrictive policies are discussed below.

2.7.1 National Defence

The welfare benefit of national defence has patriotic appeal as it touches upon the state's existence and ability to absorb calamities and repel attackers. However, its effects may also negate its benefits. First of all, it is costly to taxpayers. Many industries will arguably qualify for trade protection under national defence, including natural resources and manufacturing. Secondly, in today's global business environment, it is inconceivable for a defence industry to not be already internationalized. Its suppliers will include foreign sources, its clients will include foreign governments, and it may even have foreign co-owners through stock ownership

(Abboushi, 2010). Defence industry companies sell defence products to governments and other foreign clients (Martin, 2020). National defence companies seek partnerships with other defence companies in different countries and share their technology in the process. Defence companies in the United Kingdom, for example, have sought such partnerships in South Africa (Martin, 2016).

2.7.2 Balance of Payments / Fair Trade

Concerns about Balance of Payments happen when a trade deficit persists. A trade deficit is perceived to be an injustice perpetrated by the other country, and politicians take this platform to brandish protectionism. However, the argument is simplistic. Numerous studies show that a trade deficit per se is not economically harmful. Moreover, protections that reduce imports also invariably reduce exports (OECD, 1985) and do not change the deficit situation (Abboushi, 2010). Using import surcharges to reduce a trade deficit not only fails to reduce the deficit, it also distorts resource allocations (Kaempfer and Willet, 1987). Moreover, increases in tariffs causes GDP to fall because it causes a substantial decrease in labour productivity (Ostry, 2019).

Closely related to Balance of Payments considerations are Level Playing Field arguments. These regulations, also known as Fair Trade policies, take the form of legislation that mandate quid pro quo restrictions designed to reciprocate protective measures of foreign governments. These reciprocal protectionist policies, however, benefit only the protected industry and could escalate instead of diminish protective measures, hurting both economies in the process (Abboushi, 2006). Studies show that costs incurred by the society in the name of Fair Trade exceed the benefits that may accrue to the industry being protected (Coughlin et al., 1988).

2.7.3 Employment

It is often argued that protectionist policies are needed to protect domestic employment. However, while employees in the shielded industry are protected, those employed in industries that depend on imports suffer. Reducing imports also invariably reduce exports, reducing employment in the export industries (Abboushi, 2010). In the long run, industries that rely on protection instead of preparing for competition, both global and domestic, lose market share which leads to reduction in production and lost jobs (Luttrell, 1978).

2.7.4 Infant Industries

Protection of infant industries is directly related to employment, since new industries make new employment opportunities available. A newly created industry is presumably uncompetitive and needs governmental protection from imports until it is able to compete. However, there are many infant industries that rely on political patronage to extend infancy and protection (Coughlin et al., 1988). Industries that enjoy a prolonged luxury of protection begin to resemble an oligopoly that wields weighty political power which is used to continue, and even expand, protection (Pincus, 1977).

2.7.5 Health and Safety

There are many restrictions related to protection of health and safety, including labelling, marking and packaging requirements, hygienic requirements related to sanitary and phytosanitary conditions, and treatment of pests and disease-causing organisms (UNCTAD, 2019). Many governments, however, overshoot the aim to protect health and ensure quality and safety. In addition, they use health and safety barriers to protect domestic producers from foreign competition. This has the effect of constraining international trade, negatively affecting consumers' welfare by limiting available goods and restricting choices, and putting developing countries at a disadvantage in exporting goods to advanced economies (Kang and Ramizo, 2017).

2.8 The Effects of Trade Restriction on Human Development and Welfare

Although the effects of protectionism and trade restriction to human development and welfare have been partially discussed above, further emphasis is required to nuance the dynamics of this nexus in practical terms.

Even with evidence that protectionism is harmful to human development and welfare, governments continue to intervene in economic activity in response to lobbying by politically powerful interest groups (Tullock, 1967; Krueger, 1974). Elected politicians seek to be in favor with the majority of voters, and they do this by legislating policies that protect jobs and wages from foreign competition (Markusen et al., 1995). It is only when the average voter begins to accumulate capital that they begin to prefer free trade over trade protection (Gokcekus and Tower, 1998); that is, a notable increase in the pool of middle class elites.

Supporters of protectionism argue that for a specific product, a country with high wages cannot compete with another country with low wages. Thus, a high-wage country which opens up to

free trade with a low-wage country for that specific product faces either unemployment or have to lower its wages (Lawrence and Litan, 1987). Moreover, even though free trade may create new and better-paying jobs in more competitive industries, people prefer the status quo over uncertainty, and would rather keep their current jobs over the possibility of gaining more in a liberalized trade regime (Knetsch, 1989). However, jobs saved by trade restriction are offset by job losses in export-oriented industries, and overall employment does not increase (OECD, 1985).

When infant industry arguments begin to dovetail with jobs and employment arguments, government is faced with strong lobby groups representing both employer and employee to continue protectionist measures. It comes to a point where protection through lobbying efforts becomes the preferred route by which profits are earned and jobs and income are protected, instead of competitiveness and productivity (Kochan and Katz, 1988). Thus, some industries do not outgrow infancy and continue to be protected indefinitely (Lamb, 2006). Moreover, jobs saved because of protectionist policies are publicized by unions and policy makers, while potential jobs which were not created are not publicized because they are merely prospective. This creates an impression that protectionist policies are beneficial to employment (OECD, 1985).

Protection of industries and jobs has become so ingrained into politics that trade policy, including protectionism, is significantly the outcome of political duels wherein politicians shape policy to appeal to key constituents instead of grounding them on empirical and economic analysis (Schnietz, 1971). In the United States for instance and with specific reference to the presidential election campaign of 2016, a bipartisan consensus on an antitrade message powered both Republican and Democratic candidates as they courted the industrial base (Weisman, 2016).

Globally, trade restrictions hurt the welfare of poorer, developing countries. Trade restrictions imposed by developed countries hurt exports of developing countries, which affect welfare in the latter not only via lesser foreign exchange earnings, but even more directly in terms of unemployment and reduced incomes (OECD, 1985). Tariff reductions in developing countries can give its consumers a broader spectrum of products at a more varied price range. Expanding trade also results in more people-to-people contact, which intensifies cultural interaction and knowledge as well as easier cooperation in humanitarian efforts (Love and Lattimore, 2009).

Protectionist policies punish low-income consumers much more than their upper-income counterparts. A study targeting the effects on consumers at different income brackets found that price increases on clothing, sugar and automobiles caused by protectionist instruments represented 23 percent income tax surcharge for households with low income compared to 3 percent for households with high income (The Consumer Cost of US Trade Restraints, 1985). Similarly, an extensive study that identified the welfare costs of trade restrictions calculated that costs to consumers due to trade restrictions were among the highest in goods that were consumed by those in low income brackets, including textiles, apparel, dairy products, and goods that used carbon steel (Hufbauer et al., 1986).

Trade restrictions also affect human development and welfare negatively as the antithesis of free trade. The benefits to human development and welfare brought about by free trade are conversely absent or restricted with protectionism. These include the benefits occurring from specialization, increases in revenue and in income (Smith, 1981 [1776]), technological innovation, skills development, capital accumulation, and overall economic development (Myint, 1977), lower domestic prices (OECD, 1985), activation of resources and the encouragement of productiveness (Bloomfield, 1975), and exchange of knowledge and technology among the countries that engage in international trade (Smith, 1981 [1776]).

A historical look at trade protectionism reveals that it is rarely taken with precision, or with no or minimal collateral damage. More often, while those connected to the policy-makers benefit, consumers who have to pay higher prices become collateral damage. Protectionism eventually results in protected industries losing, or never attaining their competitive edge. Ultimately, innovation, employment and growth suffer. In economies involved in global supply chains, high tariff barriers cost as many jobs domestically as they do in the country against whom the tariff is erected (Rogoff, 2017).

International trade has been a positive force and has contributed to increased interconnectivity among countries and peoples, facilitated transfer of technology, and improved the utilization of human resources (Nieminen et al., 2017). The moral case for international trade rests on its positive effect of raising the living standards of billions of people, including some of the world's poorest citizens. Free trade's essential moral value lies on the respect it bestows on economic liberty, the right of consumers to have choices when they buy, and the right of investors to produce goods where they want (Weisman, 2016).

2.9 Chapter Summary

This chapter gave an overview of the history of international trade, from its mercantilist beginnings, to free trade, and finally to protectionism and neo-mercantilism that argue in favour of trade restriction. Mercantilism dominated economies in the sixteenth to the late eighteenth century wherein governments discouraged imports and encouraged exports to accumulate wealth in gold. In 1776, Adam Smith challenged the mercantilist view with his theory of absolute advantage. Smith theorized that nations which minimized imports by producing goods that it was not able to produce as efficiently as other countries wasted its resources, and thereby reduced its wealth. Smith advocated free trade by propounding that countries could enjoy more goods if they produced only products where they had absolute advantage, and traded with other countries for the rest.

In 1817, David Ricardo took Adam Smith's theory further by proposing that absolute advantage was not indispensable to enjoy gains from trade: what was necessary was merely to have a competitive advantage. Gains from trade have since become internationally recognized, particularly their positive effects on human development and welfare. However, some countries have reverted to a neo-mercantilist stance of protectionism to further certain policies, including national defence, protection of jobs from imports, protection of infant industries from foreign competition, gaining a favourable balance of trade, and promoting health and safety. Both tariff and non-tariff barriers are used as instruments to restrict trade. Protectionist policies, while ostensibly beneficial to the implementing country, ultimately have negative effects on human development and welfare, both for the protectionist economy as well as its trading partners.

CHAPTER 3

Asia and Africa: Similarities and Divergence

3.1 Introduction

This chapter introduces basic facts about Asia and Africa, particularly in the context of historical similarity and post-colonial developmental divergence. It reviews some of the existing comparative research on the economic growth experiences of Southeast Asia and Africa and summarizes their conclusions. The chapter discusses the regional integration efforts of Asia and Africa culminating in the formation of ASEAN and SADC. In the process, the strengths and weaknesses of existing research and how they form the basis for the approach used in this study is explained. The chapter then presents initial data to give a general overview of this study. More comprehensive and detailed empirical comparisons of the data are given in the subsequent chapters.

3.2 Parallels and Contrasts

3.2.1 History

Asia and Africa share a similarity in history. Both were traditionally in the global economic periphery where peasants produced for subsistence. Society was organized on a tribal basis and state formation was limited prior to colonization. Until the 1950s, both regions were virtually under colonial rule. When the age of empire and colonies ended around fifty years ago, Asia and Africa were inhabited by subsistence peasants. Very low living standards was prevalent for most people in this part of the globe (Henley, 2015).

Since then, these countries have branched out into very different developmental outcomes. On the one hand, some countries, particularly those of East Asia and including some of ASEAN, have become manufacturers for the export market and have vastly improved their standards of living. On the other side of the spectrum, including in Africa, others are almost as poor as they were fifty years ago, with subsistence farming remaining as the backbone of the economy, and exports are limited to oil and mineral extraction which benefit only very few (Henley, 2015).

This common thread in history as well as a shared similarity in natural endowments, followed by a stark contrast in economic success, provide a sharp tool with which to dissect developmental issues. The economic success of Asian countries such as Japan, South Korea and Taiwan provide a distinctly contrasting backdrop for research comparing that region to

Africa (Lindauer and Roemer, 1994; Stein, 1995a; Lawrence and Thirtle, 2001; Nissanke and Aryeetey, 2003a; Nissanke and Aryeetey, 2003b). The World Bank's East Asian Miracle: Economic Growth and Public Policy (1993) noted the relevance of Southeast Asia's policy experience in crafting a strategy for Africa.

3.2.2 Governance

Another similarity shared by Asian and African countries is a notoriety for a lack of good governance and a prevalence of corruption. It is of note that while these features are blamed for economic stagnation in Africa (Chabal and Daloz, 1999; Van de Walle, 2001; Van der Veen, 2004; Chabal, 2009), they are also present in Southeast Asia. Neopatrimonialism, or rent-seeking in government and the fusion of public and private spheres, was equally pervasive in Africa and Southeast Asia (Scott, 1972; Robison and Hadiz, 2004).

The divergence is in that while the patron-client structure between politicians and businessmen is blamed for developmental failure in Africa, some argue that it served to facilitate economic development in Southeast Asia (Braadbaart, 1996; Khan and Jomo, 2000). Among developing countries, there is hardly any difference in corruption and institutional quality indices between fast developers and slow developers (Wedeman, 2002). Further, Khan (2007) shows that correlations between good governance and economic growth disappear once already rich countries are excluded. Neequaye (2015) studied corruption levels at various stages of development and found that corruption and income have an inverted u-shaped relationship. His work suggests that the relationship between corruption and income changes, and ultimately reverses, from lower to higher levels of development.

It is commonly argued, even assumed, that Africa lagged behind Asia because of the comparative weakness of its political institutions. Indeed, economic performance appears to correlate with institutional quality measures including property rights and the rule of law (Acemoglu et al., 2001; Rodrik et al., 2004). However, as mentioned above, such correlations disappear once already-rich countries are taken out of the database (Khan, 2007). This is consistent with the observation that Southeast Asian countries are not much different from their African counterparts in terms of corruption (see Tables 3A & B, Corruption Index, below). It may be noted, however, that corruption indices do not distinguish between unpredictable and unorganized corruption from predictable and organized corruption, which resembles informal taxation that result in some benefits to clients, said to be the saving grace of corruption in Southeast Asian countries like Indonesia (McLeod, 2000; Macintyre, 2001).

In this study, the Asian experience is focused on ASEAN, while that of Africa is seen through SADC. The emergence of SADC is discussed in Section 3.4.1 and the emergence of ASEAN is discussed in section 3.4.2. To sharpen the focus on these two regions in this discussion on Governance, Tables 3.1A & B and Table 3.2A & B show trends in governance and corruption indices in ASEAN and SADC countries, respectively.

Table 3.1 A and B: Summary Matrix of Freedom Index Scores, SADC and ASEAN Countries (2010 – 2014)

A. SADC

	2010			2011			2012			2013			2014		
	Political Rights	*Civil Liberty*	*Freedom Status*	*Political Rights*	*Civil Liberty*	*Freedom Status*	*Political Rights*	*Civil Liberty*	*Freedom Status*	*Political Rights*	*Civil Liberty*	*Freedom Status*	*Political Rights*	*Civil Liberty*	*Freedom Status*
Angola	6	5	NF	6	5	NF	6	5	NF	6	5	NF	6	5	NF
Botswana	3	2	F	3	2	F	3	2	F	3	2	F	3	2	F
Comoros	3	4	PF	3	4	PF	3	4	PF	3	4	PF	3	4	PF
Congo, DR	6	6	NF	6	6	NF	6	6	NF	6	6	NF	6	6	NF
Eswatini	7	5	NF	7	5	NF	7	5	NF	7	5	NF	7	5	NF
Lesotho	3	3	PF	3	3	PF	3	3	PF	2	3	F	2	3	F
Madagascar	6	4	PF	6	4	PF	6	4	PF	6	4	PF	5	4	PF
Malawi	3	4	PF	3	4	PF	3	4	PF	3	4	PF	3	4	PF
Mauritius	1	2	F	1	2	F	1	2	F	1	2	F	1	2	F
Mozambique	4	3	PF	4	3	PF	4	3	PF	4	3	PF	4	3	PF
Namibia	2	2	F	2	2	F	2	2	F	2	2	F	2	2	F
Seychelles	3	3	PF	3	3	PF	3	3	PF	3	3	PF	3	3	PF
South Africa	2	2	F	2	2	F	2	2	F	2	2	F	2	2	F
Tanzania	4	3	PF	3	3	PF	3	3	PF	3	3	PF	3	3	PF
Zambia	3	4	PF	3	4	PF	3	4	PF	3	4	PF	3	4	PF
Zimbabwe	6	6	NF	6	6	NF	6	6	NF	6	6	NF	5	6	NF

B. ASEAN

	2010			2011			2012			2013			2014		
	Political Rights	*Civil Liberty*	*Freedom Status*	*Political Rights*	*Civil Liberty*	*Freedom Status*	*Political Rights*	*Civil Liberty*	*Freedom Status*	*Political Rights*	*Civil Liberty*	*Freedom Status*	*Political Rights*	*Civil Liberty*	*Freedom Status*
Brunei	6	5	NF	6	5	NF	6	5	NF	6	5	NF	6	5	NF
Cambodia	6	5	NF	6	5	NF	6	5	NF	6	5	NF	6	5	NF
Indonesia	2	3	F	2	3	F	2	3	F	2	3	F	2	4	PF
Lao PDR	7	6	NF	7	6	NF	7	6	NF	7	6	NF	7	6	NF
Malaysia	4	4	PF	4	4	PF	4	4	PF	4	4	PF	4	4	PF
Myanmar	7	7	NF	7	7	NF	7	6	NF	6	5	NF	6	5	NF
Philippines	4	3	PF	3	3	PF	3	3	PF	3	3	PF	3	3	PF
Singapore	5	4	PF	5	4	PF	4	4	PF	4	4	PF	4	4	PF
Thailand	5	4	PF	5	4	PF	4	4	PF	4	4	PF	4	4	PF
Vietnam	7	5	NF	7	5	NF	7	5	NF	7	5	NF	7	5	NF

Source: Freedom House (2019). Note: Civil Liberties and Political Rights: 1 = most free; 7 = least free. F = Free; PF = Partly Free; NF = Not Free

Table 3.2 A & B: Corruption Perceptions Index Rank and Score, SADC and ASEAN Countries (2012 – 2018)

A. SADC

	2012		2013		2014		2015		2016		2017		2018	
	Rank	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*	*Score*
Angola	157th	22	153rd	23	161st	19	163rd	15	164th	18	167th	19	165th	19
Botswana	30th	65	30th	64	31st	63	29th	63	35th	60	34th	61	34th	61
Comoros	133rd	28	127th	28	142nd	26	136th	26	153rd	24	148th	27	144th	27
Congo, DR	160th	21	154th	22	154th	22	147th	22	156th	21	161st	21	161st	20
Eswatini	88th	37	82nd	39	69th	43	*	*	*	*	85th	39	89th	38
Lesotho	64th	45	55th	49	55th	49	61st	44	83rd	39	74th	42	78th	41
Madagascar	118th	32	127th	28	133rd	28	123rd	28	145th	26	155th	24	152nd	25
Malawi	88th	37	91st	37	110th	33	111th	31	120th	31	122nd	31	120th	32
Mauritius	43rd	57	52nd	52	48th	54	45th	53	50th	54	54th	50	56th	51
Mozambique	123rd	31	119th	30	119th	31	111th	31	142nd	27	153rd	25	158th	23
Namibia	58th	48	57th	48	55th	49	45th	53	53rd	52	53rd	51	52nd	53
Seychelles	51st	52	47th	54	44th	55	40th	55	*	*	36th	60	28th	66
South Africa	69th	43	72nd	42	67th	44	61st	44	64th	45	71st	43	73rd	43
Tanzania	102nd	35	111th	33	119th	31	117th	30	116th	32	103rd	36	99th	36
Zambia	88th	37	83rd	38	85th	38	76th	38	87th	38	96th	37	105th	35
Zimbabwe	163rd	20	157th	21	156th	21	150th	21	154th	22	157th	22	160th	22

B. ASEAN

	2012		**2013**		**2014**		**2015**		**2016**		**2017**		**2018**	
Rank	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*	*Score*	
Brunei	46th	55	38th	60	*	*	*	*	41st	57	32nd	62	31st	63
Cambodia	157th	22	160th	20	156th	21	150th	21	156th	21	161st	21	161st	20
Indonesia	118th	32	114th	32	107th	34	88th	36	90th	37	96th	37	89th	38
Lao PDR	160th	21	140th	26	145th	25	139th	25	123rd	30	135th	29	132nd	29
Malaysia	54th	49	53rd	50	51st	52	50th	54	55th	49	62nd	47	61st	47
Myanmar	172nd	15	157th	21	156th	21	147th	2	136th	28	130th	30	132nd	29
Philippines	105th	34	94th	36	85th	38	95th	35	101st	35	111th	34	99th	36
Singapore	5th	87	5th	86	7th	84	7th	85	7th	84	6th	84	3rd	85
Thailand	88th	37	102nd	35	85th	38	76th	38	101st	35	96th	37	99th	36
Vietnam	123rd	31	116th	31	119th	31	111th	31	113th	33	107th	35	117th	33

Source: Transparency International (2019).

Observations on Freedom Index Scores, Table 3.1 A and B

Freedom Rating is the average of a country or territory's political rights and civil liberties ratings. It is also the figure that determines whether or not a country's status should be categorized as Free (1.0 to 2.5), Partly Free (3.0 to 5.0), or Not Free (5.5 to 7.0) (Freedom House, 2019). Based on this prelude, the following observations can be made from the statistics presented in Table 3.1 A and B:

The first observation is that the Freedom Status of the countries of both SADC and ASEAN did not substantively change from 2010 to 2014, except for the following outliers: (1) Lesotho slightly improved from Partly Free in 2010-2012 to Free in 2013-2014, and (2) Indonesia slightly deteriorated from Free in 2010-2013 to Partly Free in 2014. Aside from the slight changes in both countries in the aforementioned years, the vast membership of both SADC and ASEAN maintained their Freedom Status throughout the years.

A second observation is that ASEAN members gravitate towards Not Free status while SADC countries gravitate towards Partially Free status. Disregarding the minor changes in the outliers mentioned in the first observation, the distribution is as shown in Table 3.3:

Table 3.3: Distribution of Freedom Index Scores, SADC and ASEAN

	Free	Partially Free	Not Free
SADC	4/16 or 25%	8/16 or 50%	4/16 or 25%
ASEAN	1/10 or 10%	4/10 or 40%	5/10 or 50%

Source: Author's computations.

In summary, the observation from Table 3.1A and B is that SADC has a better Freedom Index score than ASEAN, and this score has been consistent throughout 2010-2014.

Observations on Corruption Perceptions Index Rank and Score, Table 3.2 A and B

The Corruptions Perceptions Index rank 180 countries with a score from 100, or very clean, to 0, or highly corrupt (Transparency International, 2019). To gain some perspective on where SADC and ASEAN belong, this study divides the scale into three tiers, the first tier being 0-33, the second tier being 34-66 and the third tier being 67-100.

The following observations can be made from Table 3.2 A and B:

A first observation is that the Corruption Perceptions Index scores of the countries of both SADC and ASEAN did not substantively change from 2012 to 2018. In a practical sense, considering that there was no substantial change from 2012-2018, the year 2015 can be taken as a median year. A second observation is that in 2015, perception of corruption in SADC gravitated towards Most Corrupt, while perception for ASEAN was divided between towards Most Corrupt and the middle ground. ASEAN's 11% in the Least Corrupt category is represented by 1 country, Singapore. The distribution is as shown in Table 3.4.

Table 3.4: Distribution of Corruption Perceptions Index Scores, SADC and ASEAN

	0-33 (Most Corrupt)	34-66 (Middle)	67-100 (Least Corrupt)
SADC	8/15 or 53%	7/15 or 47%	0/15 or 0%
ASEAN	4/9 or 44%	4/9 or 44%	1/9 or 11%

Source: Author's computations.

In summary, the observation from Table 3.2 A and B is that SADC is perceived as more corrupt than ASEAN.

Thus, from Tables 3.3 and 3.4, it can be seen that even though SADC enjoys more civil liberties and political rights than ASEAN, it is perceived as more corrupt than ASEAN.

Moreover, while there is a debate on the correlation, or lack thereof, between freedom and economic development, particularly in the light of the Asian experience especially China, there seems to be such a correlation in sub-Saharan Africa. In 2014, SADC countries categorized as Free by Freedom House such as Botswana, Mauritius, Namibia and South Africa are economically doing better than the other SADC members (World Bank, 2020c).

On the other hand, there seems to be no such correlation in ASEAN, whose members are all either Partially Free or Not Free. Even the most economically developed member, Singapore, is only Partially Free even if it is perceived as among the Least Corrupt.

3.2.3 Economy

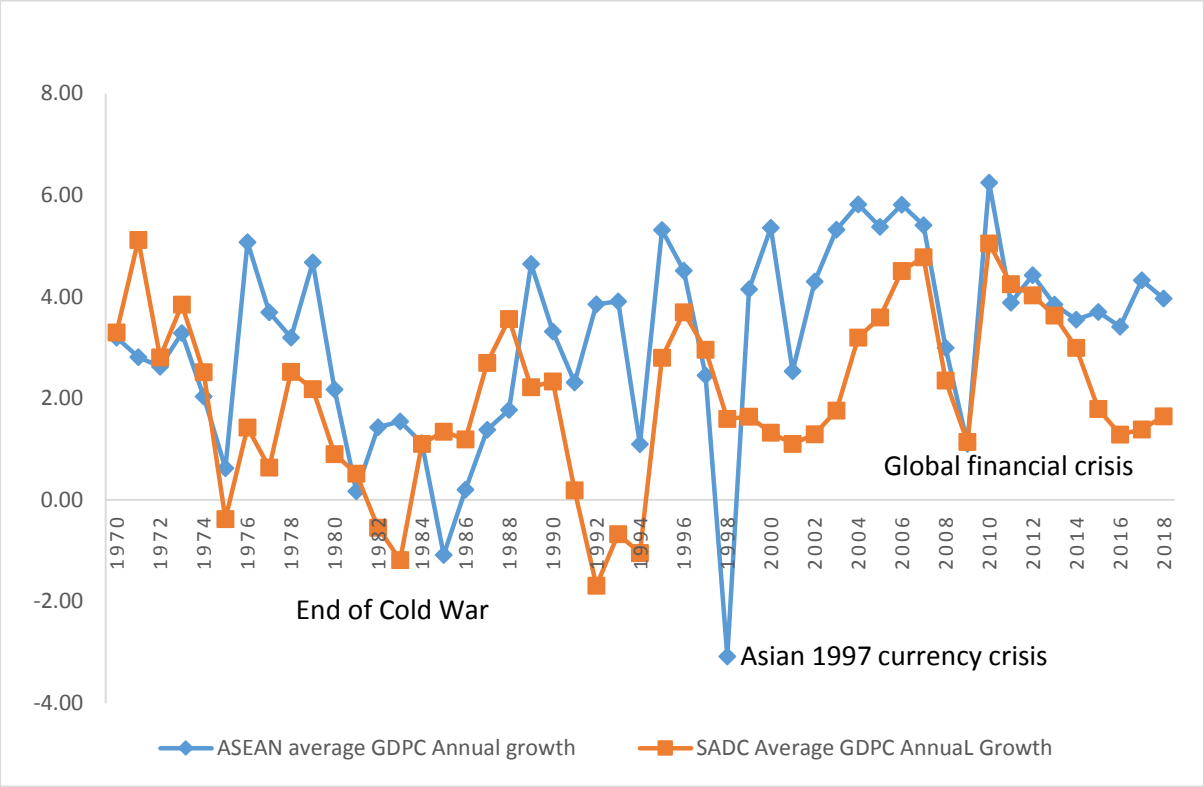
Figure 3.1 below shows trends in average growth in GDP per capita from 1970 to 2018 for ASEAN and SADC regions. Coming out of colonialism in the 1960s and 1970s, GDP per capita in Southeast Asia was much less than in Sub-Saharan Africa and SADC as well. By the 1990s GDP per capita growth in Southeast Asia had caught up and exceeded GDP per capita annual

growth in SADC. However the impact of the 1997 Asian financial crisis can be seen reflecting in the steep decline in GDP per capita growth in ASEAN, from an average growth of 5.31% in 1995 to -3.08% in 1998 (World Bank, 1998). Southeast Asia recovered strongly in the 2000s with GDP per capita average annual growth reaching 5.36% in 2000 and 5.81% in 2006 until the global financial crisis from 2007 to 2009 where all regions saw significant economic decline.

This rapid recovery in ASEAN can be attributed to the region's continued strength in factors that contributed to its rapid economic expansion, including high level of savings, low underlying inflation rates, and a vibrant, entrepreneurial private sector (Setboonsarng, 1998). A procyclical relationship can be seen between average GDP per capita annual growth of SADC and ASEAN, with ASEAN's per capita GDP growth above that of SADC in most decades. Exceptions can be seen in 1984 and 1988 when the two regions diverge in GDP per capita average growth trends. In 1984, ASEAN suffered a downturn as the global economy, to which it was deeply linked, slowed its pace resulting in high rates of unemployment and tight international financial markets (UN, 1985). In 1988, while ASEAN recovered and its growth continued, SADC suffered an economic downturn due to poor policy decisions combined with exogenous factors, including declines in foreign trade, aid and investment, coupled with an escalating foreign debt (Parliament of Australia, 1996).

It can be observed from Figure 3.1 that from 2010 until 2018 the economies of both regions have been on a decline, with the decline being more severe in SADC than in ASEAN. The decline in ASEAN since 2010 is driven by China's entering a new normal phase of slower growth (Yesmin, 2019). China exerts a powerful pull on ASEAN economies, buoying the latter in times of growth, and at the same time having the potential to cause structural imbalances in times of economic slowdowns. Also in 2010, the ASEAN China Free Trade Agreement (ACFTA) came into full effect, resulting in ASEAN's trade in goods with the country going from a surplus to a deficit (Salidjanova et al., 2015). SADC's steep decline since 2010 on the other hand is caused by South Africa's inability to fully recover from the global financial crisis, being the largest economy in the SADC region and Africa as a whole (IMF, 2011).

Figure 3.1: Graph of per capita income for ASEAN and SADC 1970 – 2018



Note: Data Source: World Development Indicators of the World Bank (2020c). ASEAN: from 1970 to 1985 excludes LAO PDR and Vietnam, 1970 to 1994 excludes Cambodia. SADC: from 1970 to 1980 excludes Angola, Comoros, Mozambique and Namibia

Figure 3.1 further suggests that Southeast Asia in the mid-1970s to late 1970s experienced not only sustained but accelerating economic growth. However a steep decline can be observed from 1979 to 1985, mirrored by trends in SADC as well, although at a much lower level. This period marked the ending of the Cold War between the United States and the Soviet Union, which impacted the global economy. SADC particularly South Africa was still under apartheid, with renewed sanctions on the apartheid regime further crippling economic activity in South Africa and its periphery (Becker, 1988; Laverty, 2007). By the 1990s, practically all major countries in the ASEAN region were participating in an Asian development miracle, with the exception of Burma/Myanmar (World Bank, 1993).

Despite historical, economic, and other similarities, the vitality in Asia was absent in Africa. Even promising African countries where security and policy conditions were considered favourable, like Kenya and Cote d'Ivoire, were stagnating. Economic immobility in Africa was so widespread and consistent that an 'African dummy' statistical variable was identified by writers as a predictor of comparative economic performance (Barro, 1991), and the Asian miracle was juxtaposed with an African growth tragedy (Easterly and Levine, 1995). Moreover, while Southeast Asian exports now consists of manufactured goods, African exports

continue to be in traditional agricultural products. To underscore the disparity, Asia has overtaken Africa even in the field of traditionally African agricultural export products such as coffee, cocoa, and palm oil (Henley, 2015).

It is considered noteworthy to mention that the late 1990s show sustained national income growths in Africa as a result of better economic policy and market liberalization, coupled with increased global demand for traditional African products such as coffee, cotton and minerals. Thence, recent growth performance in Africa has caused the pessimism of the 1990s to be replaced by some optimism that the Asian Tigers are being joined by African Lions (McKinsey Global Institute, 2010; Radelet, 2010).

A particular point of interest is the reality that ASEAN has been more successful than SADC in translating growth into poverty reduction. Half the SADC population lives below the international poverty line (SADC, 2012b), compared to ASEAN's figure of 14% in 2015 (ASEAN, 2018). While some writers say that African poverty reduction is underestimated (Sala-i-Martin and Pinkovskiy, 2010), most of the research show that aggregate growth in Africa has not resulted in a proportionate decrease in the region's poverty levels (OECD, 2011; UN Economic Commission for Africa [UNECA], 2011). In contrast, growth in Southeast Asia was accompanied by dramatic reductions in poverty levels (ASEAN, 2018).

3.3 Comparative Studies

Much of the comparative research done on Asia and Africa came as a result of the report - The East Asian Miracle: Economic Growth and Public Policy (World Bank, 1993), aimed at identifying lessons that might be extracted from the Asian development miracle at the tail of the twentieth century and applying them to the African experience. Southeast Asia's success in both economic development and poverty reduction is associated with its policy to promote export-oriented industrialization, and because of the many similarities between Southeast Asia and Africa, the emulation of this approach in Africa has been widely encouraged (Soludo, 2003; Collier, 2007; Johnson et al., 2007).

In a treatise on The Political Economy of Economic Growth in Africa 1960-2000, the African Economic Research Consortium recognizes, without any qualification, the Asian model of diversified export growth for emulation of the whole of coastal Africa (Ndulu et al., 2008). Rural development (as opposed to export-led industrialization) is at most recognized as a second-best option that may be adopted by land-locked countries which, for geographical

reasons, do not have the option for export-led industrialization due to the absence of ports (Ndulu at al., 2008).

Until as recently as the 1970s, typical comparative studies between Asia and Africa stressed similarities between them, particularly their low income levels and their predominantly rural-based agricultural economies. Both regions were considered as part of a tropical third world that shared common environmental, social and political constraints that hindered economic progress (Gourou, 1947; Boeke, 1953; Rostow, 1960; Frank, 1978). By the late 20th century however, the divergence in the experiences of Asia and Africa put these earlier general theories of the commonality of their underlying causes of underdevelopment into question. By the 1990s, the old uniformity of a stagnant and poverty-stricken Third World to which Asia and Africa belonged was changing. By then, Southeast Asian economies had outpaced Africa by leaps and bounds.

Following the lead of Singapore in the region, and of Hong Kong, Taiwan and South Korea further up north, Malaysia, Thailand and Indonesia had been developing unceasingly for more than two decades, creating new terminology to describe them: Asian Tigers, the East Asian Miracle, and the Newly Industrializing Countries (NICs) (Henley, 2015). Meanwhile in sub-Saharan Africa, an antithesis growth tragedy (Easterly and Levine, 1997) was emerging, where during the 1980s per capita income had actually fallen at a rate of more than 1 per cent per annum (Stein, 1995b), and the region was marked as the last region of underdevelopment (Chege, 1993) as Southeast Asia and South America pulled away.

Praising the success of East and Southeast Asia, the World Bank in its 1993 report The East Asian Miracle identified eight High Performing Asian Economies (HPAEs): Japan, South Korea, Hong Kong, Taiwan, Thailand, Malaysia, Singapore and Indonesia, and made a canonical summary of common means by which they succeeded, including policies that ensure low inflation and competitive exchange rates, strong and effective banking systems, investment in quality education to improve human capital, agricultural support mechanisms, the professionalization and protection of civil servants from political pressure, institutional alliances between the public and private sectors, and most importantly and serving as the common thread that tied everything together, an emphasis on the growth of exports as the strategy for development (World Bank, 1993).

Comparisons of development policies between Asia and Africa immediately followed the World Bank report. In 1994, the Harvard Institute for International Development published a

collective volume for the Africa Bureau of the United States Agency for International Development (USAID) emphasizing the NICs of Southeast Asia as development models for sub-Saharan Africa (Lindauer and Roemer, 1994). Similarities between Africa and Southeast Asia were revisited, particularly abundance of natural resources, lack of human capital, lack of administrative capacity, a proneness to inefficiency and corruption, and reiterating the World Bank in noting that the success of Southeast Asia had resulted from outward looking, market friendly policies on international trade and foreign investment. Lindauer and Roemer (1994) prescribed the Southeast Asian experience as a development policy blueprint for Africa, saying that most of what Southeast Asia accomplished beginning thirty years ago can presently be accomplished by several African countries.

Many comparative studies followed, echoing the same sentiment. Applying lessons learned from Thailand and Malaysia, Chhibber and Leechor (1995) recommended that Ghana expand expenditures on basic education and encourage private investment by maintaining macroeconomic stability. In a World Bank discussion paper on 'Practical lessons for Africa from East Asia in industrial trade policies', Harrold et al. (1996) compared the development experiences of Nigeria and Thailand and confirmed the World Bank conclusion that exports should be encouraged by keeping currency exchange rates low, and that macroeconomic stability with low inflation to increase savings and investments had to be established by African states as an indispensable underpinning for the economic success that had been achieved by southeast Asian economies.

In a World Bank-sponsored comparison of Nigeria and Indonesia, Bevan et al. (1999) reached similar conclusions with respect to the benefits of an openness in industrial and trade policies, at the same time emphasizing the major differences with which the two countries addressed agriculture. Thompson et al. (2000) in their comparative work on Asia and Africa, The Baobab and the Mango Tree, looked at Thailand and Ghana and compared the characteristics and qualities of Asian and African political leaders. They characterized the leaders of Thailand as cautious, practical and unassuming while most of their African counterparts were imprudent, pompous and combative. They acknowledged that bad policies were sometimes inherited or placed upon governments by historical circumstances, but while the leaders of Asia rejected them, Africans did not.

Comparing the economic reform process between Vietnam and Tanzania since 1986, Van Arkadie and Do (2004) likewise supported the World Bank's Asian prescription for Africa,

particularly, the importance of export promotion as a crucial strategy for rapid economic development. In pursuing that goal, the study recommended that Tanzania adopt, like Vietnam, economic reforms that are market oriented, invest in education to improve human capital, and improve rural infrastructure. However, it also noted that Vietnam's retention of state ownership in some sectors had better results than unfettered privatization undertaken in Tanzania. As Southeast Asia continued to grow and Africa continued to stagnate, the tendency of the literature began to shift. While earlier studies prescribed Asian solutions to African problems, later studies increasingly reflected on constraints faced by African policymakers and on the impediments in attempting to implement Asian policy directions in an African environment.

A 1996 research on the comparative development experience in Asia and Africa instituted by the African Economic Research Consortium (AERC) resulted in publications (Aryeetey et al., 2003; Nissanke and Aryeetey, 2003a) which emphasized constraints rather than prescriptions. Nissanke and Aryeetey (2003b) identified ecological constraints in the 1960s as the reason why Africa's agriculture did not benefit as much as Asia's from the Green Revolution in farming technology. In the 1970s and 1980s, they say that Africa's institutions were starved of public investment by mandatory structural adjustments imposed upon them by creditors. They say that Africa's colonial past resulted in inherited economic structures that were distorted, and which blocked opportunities for indigenous and autonomous growth. Africa suffered from a cumulative institutional impoverishment, which made implementation of good policy impossible, in addition to high political instability, civil strife and natural calamity. Elbadawi et al. (2003) add a less skilled and poorly educated labour force compared to Asia, a predilection to violent changes in government, and a lack of regional growth poles to act as economic role models for good policy choices that stimulate good development, which have served to propagate growth across boundaries in East and Southeast Asia.

Pessimism on the prospects of African economic growth have also been laid on the burden of history. Colonialism as the systematic root of African underdevelopment continued well into the 1980s (Wallerstein, 1986; Amin, 1989). Some reconsideration was given with Asia's economic rise despite a similar history (Arrighi, 1996; Frank, 1998), but even into the 1990s, Africanists were still tracing Africa's contemporary development challenges to its colonial past (Davidson, 1992; Mamdani, 1996). Expectations for Africa has improved substantially as a result of growth in some of its members, but there continues to be an undertone of pessimism based on unchangeable history (Van der Veen, 2004; Meredith, 2005). The discourse on

economic challenges in Southeast Asia, on the other hand, no longer exhibit much interest in the colonial argument and its attendant pessimism.

Emphasizing historical constraints, Brautigam (2003) argues that Southeast Asia was able to establish a lead over Africa, even as they shared similarities in economic structure and standards of living in the mid-twentieth century, because it was already integrated into maritime trading networks in Asia and Europe several centuries before maritime trade reached sub-Saharan Africa. Also, proximity to Japan which was the first industrialized country outside of Europe at that time served as a catalyst for Southeast Asia's entrepreneurial spirit, particularly through direct investments and joint ventures. To this, Soludo (2003) adds the constraint of size and disarray, saying that many African states were too small and too balkanized to support networks to attain economies of scale or attract substantial investment and, moreover, that Africa had the highest transport and telecommunication costs in the world.

Africa's debt burden also gets its fair share of the blame. Moghalu (2014) suggests that underdevelopment in Africa is the result of foreign aid. Africa was the recipient of huge aid in the 1960s, particularly in big ticket infrastructure projects that were seen as the strongest catalysts for economic growth including roads, bridges, dams and railways (Moghalu, 2014). Moyo (2009) observes that at least $ 1 trillion in foreign aid has been transferred to Africa over the past half-century, but current real capita income is lower than it was in the 1970s. For other critics, aid has not only impaired Africa's economic growth, it has also led to the continent's huge debt burden (Health Poverty Action, 2014). In The Curse of Aid, Djankov et al. (2007) see a similarity between aid and natural resources in that it provides a windfall for a small group of recipients who then engage in rent seeking behaviour.

Anecdotal discourse also blame the lazy native narrative for Africa's lagging behind Southeast Asia. The virtue of hard work and the entrepreneurial drive among Asians is often compared to a lack of work ethic among native Africans. Without resorting to databases and complex statistical methods, common sense and some review of historical fact reveal that this is subjective, at best. The indolence that is sometimes said about Africans today was also said of Asians in the nineteenth and early twentieth centuries, when the myth of the lazy native was taken as a given among Europeans in Indonesia, Malaya and the Philippines (Alatas, 1977). As economic development brought about economic opportunities in Asia, the myth simply disappeared from the dialog.

While enthusiasm about Asian solutions for African problems appear to have lessened, there is one aspect of Asian success that still resonates among Africanists: the protection of infant industries (Amsden, 1989; Wade, 1990; Chang, 2003). Many economists find the protectionist argument for infant industries rational, and maintain that governments must first promote exports before opening their markets to imports (Brautigam, 2003).

There is a major concern in the infant industry argument, however. While such government intervention was successful in Northeast Asia, it was less successful in Southeast Asia. The reason is that protecting infant industries and opening them up to competition upon adulthood requires a discipline that is possible only with strong, high-quality governance and institutions. Roemer (1994) compares interventions in Korea and Singapore with those of the ASEAN Four (Thailand, Malaysia, Indonesia, and the Philippines) to make the point. While infant industry interventions in Korea and Singapore quickly lead to new export industries upon maturity, the same interventions in the ASEAN Four remained in place long after the need, catering instead to clients profiting behind protective barriers. States in Africa have been noted to be generally less professional and more susceptible to patronage and rent seeking. Many publications that look at the transferability (or non-transferability) of the Asian development lessons find the same limitations (Brautigam, 1995; Edwards, 1995; Evans, 1999; Morrissey, 2001; Hanatani, 2008).

Tracking Development is one of the most recent studies that compares the development trajectories of Southeast Asian countries to those of Sub-Saharan Africa since the 1960s, with the objective of providing information relevant for planning African development (Donge et al., 2012). The research concerned itself with providing facilitative information rather than prescribing solutions. As such, the data generated different, sometimes contradictory, views on the causes of the divergence (Fuady, 2012; Un, 2012; Van Donge et al., 2012; Berendsen et al., 2013; Kilama, 2013; Kinuthia, 2013).

Using patterns from the comparative data in Tracking Development, Henley (2015) presents a view that the divergence between the performances of Southeast Asian countries as compared to their sub-Saharan counterparts does not result from geographical endowments or institutional differences. Rather, Henley points to a lack of serious developmental intent on the part of sub-Saharan national leaders, citing as his key arguments pro-poor policy choices in Southeast Asia, particularly in developing the agricultural sector, which he finds absent in sub-Saharan Africa.

In recent years, development studies comparing Asia and Africa and prescribing generalized Asian solutions for generalized African challenges have become less common. The improving economies of some African countries has reduced the continent's stark contrast with Asia, and the reignited hope for Africa with visions of African Lions or African Cheetahs running alongside Asian Tigers, while still mentioning Asia, now stress Western rather than Asian remedies. For instance, Radelet (2010) in his positive Emerging Africa, while noting the phenomenal progress of Asian countries like China and Indonesia, underscores the importance of democratic structures and political accountability, which did not play pivotal roles in the Southeast Asian path towards economic development.

Some writers have endorsed in recent years a focus towards rural development policy (Breisinger and Diao, 2008; Cervantes-Godoy and Dewbre, 2010; Fan, 2008; Losch, 2012; Henley, 2015) but authoritative publications continue to prioritize an emulation of Southeast Asia's industrialization through manufacturing for export as the strategy for Africa (African Centre for Economic Transformation [ACET], 2014; UN Economic Commission for Africa [UNECA], 2014). While these studies are relatively recent, they continue to be reflective of the World Bank view. In its report - The East Asian Miracle, only five pages discuss the importance of the agricultural sector while twenty-five pages are devoted to the significance of pushing exports to attain economic development (World Bank, 1993:32-37,123-148).

Most of the comparative studies on Africa and Asia (e.g. Henley, 2015) are focused on finding the drivers of the divergence in the development of the two regions and their historical developmental trajectories over time. To date, there has been very little attention paid to the developmental impact of trade in these two regions. The focus has mostly been on how to enhance economic growth or create jobs, including through the protection of infant industries, the emulation by Africa of Asia's industrialisation through manufacturing for exports, and the development of agriculture. Moreover, most of these studies, discussed above, did not use panel data econometric approaches.

Using empirical evidence, this study investigates the assertion of Henley (2015) *et alia* that Africa is underdeveloped compared to Asia due to a lack of developmental intent in policy directions, including in national development and regional integration through trade. In other words, does international trade have an impact on human development in these two regions? This study adds to scarce literature on the developmental impact of trade in developing countries via a comparison between ASEAN and SADC, especially through the human

development nexus. Dynamic panel data econometric approaches are used to conduct this research. In the process, country specific differences are controlled for, as well as spillover effects between countries in each of the two regions. In addition, other assumptions of the classical linear regression model are provided for in the estimation process to ensure that the results are robust, authentic and acceptable.

Thus, this study contributes to scarce existing literature on the developmental impact of trade in developing countries particularly in SADC and ASEAN, and also differs from existing literature by employing dynamic panel data estimation approaches, coupled with its in-depth comparative approach.

3.4 Regional Integration and Trade Promotion

The prospect of heightened economic growth has remained the main motivation of virtually all initiatives towards regional economic integration (Madyo, 2008). Economic integration results in substantial benefits, including amplification of cross border economic activity that lead to the creation of employment and economic growth (Sekyere, 2017). Hastened by Regional Trade Agreements (RTAs), regional integration has brought new opportunities and new challenges. In a Note to the United Nations Conference on Trade and Development – Trade Development Board (UNCTAD TDB) for its 64th Session held in Geneva on 11-22 September 2017, the UNCTAD Secretariat identified a new trend in trade networks (UNCTAD, 2017). The UNCTAD Secretariat noted that in a span of a little over 20 years (1995 to 2017), the WTO was notified of over 400 RTAs, and that in the last ten years, a new, ambitious RTA model that involves multiple countries has arisen in several regions. Dubbed mega-regionals, these include the TPP, the Regional Comprehensive Economic Partnership (RCEP), and the African Continental Free Trade Area (AfCFTA).

Recent events have seemed to knell the decline of the era of mega-regionals, particularly the decision in 2016 of the United Kingdom to exit from the EU, and the announcement in 2017 of the United States to withdraw from the TPP. In both instances, trade has been blamed for unemployment, even though the real driving force may be technological changes and shifts in competitive advantage. The UNCTAD Secretariat concludes that despite these apparent set-backs, regional integration will remain key to the world's economic future (UNCTAD, 2017).

3.4.1 Regional Integration in Africa: SADC

Among Africa's regional trading blocs is SADC, with sixteen members: Angola, Botswana, Comoros, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe (SADC, 2012c).

Human development remains a daunting challenge in the SADC region. An estimated half of its population lives below the international poverty line of US$1 per day (SADC, 2012b). This is worsened by high levels of disease, including HIV and AIDS, malaria and tuberculosis, civil strife, natural disasters such as droughts and floods, unemployment, and low productivity (SADC, 2012b). Creation of employment opportunities in Africa is especially important as the continent experiences demographic changes brought about by a substantial increase in its youth population (Sekyere, 2019).

To address these challenges, SADC in 2003 instituted a comprehensive development and implementation framework to cover fifteen years, 2005-2020, called the Regional Indicative Strategic Development Plan (RISDP). Central social and human development targets were instituted, including universal and gender-balanced primary education, reduced infant and maternal mortality rates, and reversal of disease incidents. Investment promotion and competitiveness of the region was likewise linked to human development, particularly to education, skills and health, and to technology and innovation (SADC, 2017). SADC reports it has made moderate progress over the last decade, but major challenges remain to be addressed (SADC, 2017). Poor technological capability has been determined to be a major deterrent to the attractiveness of African countries to international business (Aregbeshola, 2018).

RISDP identifies SADC's strategy for economic growth, which is anchored on regional integration (SADC, 2017). Trade liberalization is seen as the main catalyst towards obtaining the economic benefits of regional integration, including increased market size, improved trade flows, transfer of technology, and diversified industrial development. The RISDP is focusing on regional value chains, a Free Trade Agreement, and wider application of technology and innovation (SADC, 2017).

SADC also developed a Protocol on Trade in 1996, a Protocol on Finance and Investment in 2006 and a draft Protocol on Trade in Services in 2012. The SADC Free Trade Area was established through the Protocol on Trade, with the objectives of market integration, trade liberalisation, industrial development, increased investments and monetary cooperation. An

integration milestone is the establishment of a SADC Customs Union, which was originally targeted by 2010. However, the implementation has been delayed due to capacity constraints. This delay ultimately hindered the subsequent steps in integration, including the SADC Common Market and Monetary Union (SADC, 2012d).

There is, however, an existing customs union composed of five countries who are all members of SADC: Botswana, Eswatini, Lesotho, Namibia and South Africa. The Southern African Customs Union (SACU), established in 1910, is the oldest customs union in the world (SACU, 2020), and its functionality remains conventionally relevant till date.

On 17-18 August 2019, SADC leaders took forward the region's industrialization agenda on the occasion of the organization's 39th Summit. As before, development and job creation in the SADC context was anchored on intra-regional trade. Noting the slow growth of intra-SADC trade and the continued reliance on exports of unprocessed raw material, a Protocol on Industry was approved to promote the development of a competitive industrial base (SADC, 2019).

In Making Regional Trade Work for Africa: Turning Words into Deeds, UNCTAD notes the recognition of African leaders that RTAs are critical in the pursuit of more robust regional trade but low levels of utilization has left the opportunity largely untapped. Possible solutions include setting realistic and feasible targets, monitoring implementation, and reducing overlapping memberships of regional economic communities (UNCTAD, 2015).

3.4.2 Regional Integration in Asia: ASEAN

ASEAN's leading role in the economic integration of the region was not always in the forefront from its inception. The organization's origins can be traced to the Association of Southeast Asia (ASA), an organization formed by the Philippines, Malaysia and Thailand in 1961, partly motivated by a common fear of communism and to keep peace among the competing neighbours. ASEAN was formally formed on 8 August 1967 with the signing of the Bangkok Declaration. It has since matured into a regional organization of ten countries: Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam (ASEAN, 2020a).

Regionalism is driven by the imperative of growth (World Bank, 2020b), and the ASEAN Declaration identifies the acceleration of economic growth as one of the organization's principal aims. In 2007, the AEC Blueprint (2008-2015) was adopted, culminating in 2015 with the formation of the ASEAN Economic Community (AEC) (ASEAN, 2015). In 2014, the

collective AEC was the third largest economy in Asia and seventh in the world, encompassing over 622 million people and a market of US$2.6 trillion (ASEAN, 2020a).

While the initial raison d'etre of ASEAN was peace and stability in the region during the polarized backdrop of the Cold War (Wood, 2017), its current focus now includes the quickening of economic growth among the members and the region and the acceleration of social progress and cultural development (Nuclear Threat Initiative [NTI], 2020). ASEAN's size, which translates into an enormous combined economic clout, and the international influence of some of its more prominent members like Indonesia and Singapore gives the regional group enormous potential in the international field, particularly in international trade. Liberal regional trade regimes and freer intra-ASEAN trade do attract more investment in the region, thereby resulting in a more competitive range of industries and a larger role for ASEAN in international trade fora (Kurlantzick, 2012).

Given its positive story of growth, ASEAN shows no sign of slowing down on its full-steam pursuit of regional integration. During the 35th ASEAN Summit in Bangkok on 2-3 November 2019, the leaders noted the region's growth of 5.2% in 2018 with a combined GDP of USD 3.0 trillion, retaining the group's position as the 5th largest economy in the world (ASEAN, 2019). ASEAN's current free trade agreements include the ASEAN-China Free Trade Area (ACFTA), the ASEAN-Korea Trade in Goods Agreement, the ASEAN-Australia-New Zealand Free Trade Area (AANZFTA), and the ASEAN-India Trade in Goods Agreement (ASEAN, 2019).

An important upcoming free trade agreement is the Regional Comprehensive Economic Partnership (RCEP) composed of ASEAN plus Australia, China, Japan, New Zealand, and South Korea. The parties have committed to sign in 2020, which will considerably improve a rules-based international trading system as well as to the growth of value chains in the region, creating an integrated and more seamless industrial structure (ASEAN, 2019).

With the withdrawal of the United States from the TPP early in 2017 (Trump, 2017), focus has shifted to RCEP. The rivalry between TPP and RCEP was focused on two economic giants – the United States and China. China is a member of RCEP and not of TPP, while the United States was a member of TPP but not RCEP. RCEP was thus seen as China's sphere of influence, while TPP was seen as the United States' sphere of influence. With the United States out of TPP, RCEP's ambitions have attained new heights. Upon effectivity, the Partnership will be largest free trade area in the world. It will encompass a total population of 3.5 billion people with a combined GDP of US$23 trillion – one third of global GDP. (UNCTAD, 2017).

Chapter 4
Research Methodology

4.1 Theoretical Framework

The theoretical framework for this study involves a number of macroeconomic theories, namely Keynesian aggregate demand theory and endogenous growth models of Robert Solow. Within this framework, trade affects human development in diverse ways; through its effect on economic growth (Ortiz-Ospina, 2018) and employment creation, ultimately enhancing wellbeing and living standards (Fajgelbaum & Khandelwal, 2014; World Bank, 2018b). Basic Keynesian macroeconomics presents openness to trade as represented by net exports as an integral component of aggregate demand and ultimately economic growth (Mankiw, 2009). The other components of aggregate demand are consumption by households, investment by firms and households and government expenditure. Keynesian's aggregate demand theory assumes that investment by firms and households implies that there is output productivity for which reason firms need to invest in capital accumulation, and full employment through which households earn income which they can leverage to smooth consumption, thereby improving their standard of living – an inherent part of human development.

In a practical sense, openness to trade and globalization has been found to have an inverse relationship with absolute levels of poverty, hence all things being equal, trade should alleviate poverty levels, thereby enhancing human wellbeing, a component of HDI (Fajgelbaum & Khandelwal, 2014; Ortiz-Ospina, 2018; World Bank, 2018b). Openness to trade has also been found to lead to foreign direct investments that enhance knowledge and technology transfers and learning by doing opportunities from more developed countries to less developed countries. Participation in international networks of trade and investment results in direct and spill-over benefits, including in upgraded technology and knowledge transfer (Aregbeshola, 2014). This contributes significantly to human capital development and enhances efficiency of labour.

Endogenous models postulate that efficiency of labour is an integral part of economic growth in addition to capital accumulation and technological progress (Solow, 1956). Capital drives growth until economies hit a steady state at which growth is stabilized. This is due to the diminishing marginal product of capital. Countries which are able to grow post-steady state are those which are able to improve their level of technology through investment into research and development, and human capital development (Solow, 1956). This study conceptualizes human

capital development beyond just skills development to encapsulate other dimensions of human development such as life expectancy and wellbeing as captured by the HDI. Basically, it can be assumed that a healthy, literate and long living labour force is more likely to be a productive and well specialized labour force that is capable of enhancing trade relations with the rest of the world. Based on these two frameworks, i.e. Keynesian aggregate demand theory and endogenous growth models, human development is modelled as a function of trade, income, capital accumulation, unemployment and technological progress.

4.2 Data

On the basis of the theoretical framework, annual data from the World Development Indicators of the World Bank (World Bank, 2020c) and the UN (UNDP, 2019b) from 2000 to 2018 are used in this study. Table 4.1 outlines sources and definitions of the variables used in this study. The same variables are used for both ASEAN and SADC regions. Trade is measured using the current account balance as a percentage of GDP (Mankiw, 2009). Human development is captured by the United Nation's HDI, which is a composite variable consisting of life expectancy, wellbeing and education (UNDP, 2019b). Income per capita measures output growth from which countries trade. Capital accumulation which is key to the production of output as per economic growth models (Solow, 1956) is captured by gross fixed capital formation as a percentage of GDP. Unemployment is measured by the rate of unemployment as a percentage of the total labour force, and technological progress is captured by the number of cell phone subscriptions per 100 people.

Table 4.1: Sources and Definition of Variables

Symbol	Variable	Source	Definition
hdi	Human Development Index	United Nations	A composite index consisting of life expectancy, wellbeing and education.
nx	Trade	World Bank	Current account balance % GDP
gdpc	Per capita income	World Bank	GDP per capita growth (% annual)
gfcf	Capital accumulation	World Bank	Gross fixed capital formation (% of GDP)
un	Unemployment	World Bank	Unemployment, total (% of total labour force)
tech	Technological progress	World Bank	Mobile cellular subscriptions per 100 people

Source: Authors compilation

4.3 Methodology

The data is analyzed using three distinct steps; initial diagnostics of the dataset; model specification and estimation; and post estimation diagnostics.

4.3.1 Initial Diagnostics of the Dataset

Initial diagnostics of the dataset is done in two phases. The first phase involves probing for longitudinal trends in the dataset. This includes a visual inspection of the relationship between human development and trade using a scatter diagram, descriptive statistics and pairwise correlation analysis. The scatter diagram gives us an initial impression of how the two key variables in this study, human development and trade, are likely to trend together. The descriptive statistics show the mean, minimum and maximum levels of each variable, what factors were driving such trends and the implications of such trends for this study. This is then followed by cross correlation analysis which depicts the direction and strength of the relationship between human development and trade as well as the other variables, and how consistent that is with expectations emanating from the theoretical framework. A positive correlation would imply a direct relationship between variables, while a negative correlation implies an inverse relationship. The strength of the relationship is depicted by the magnitude of the correlation coefficient. The outcome of the first phase of the initial diagnostics informs our *a priori* expectations in terms of how the variables are likely to relate to each other in the estimation result.

The second phase of the initial diagnostics tests for the panel data characteristics of the dataset. This includes testing for the validity of individual country effects and any time specific experiences unique to any of the countries in the dataset. Although the countries in the two datasets used in this study are clustered in their respective regions, specifically ASEAN and SADC, each of the countries may have a unique experience that might not be applicable to the other countries in the region. These individual unique experiences may also have happened at specific times. In addition, regional protocols, cross border trade, common cultural and religious practices and spillover effects from both endogenous and exogenous shocks translate empirically into what is termed as cross sectional dependence of the error term. This also needs to be tested for and controlled for in the estimation approach used. In addition, as consistent with dynamic panel data econometric models, the study also tests for the existence of endogeneity and to ensure that there is no multicollinearity between the lag of the dependent variable on the right hand side of the model or any other explanatory variable; and the fixed effect or idiosyncratic error term in the specified model.

4.3.2 Model Specification and Estimation Technique

Two types of models can be specified, either a one way or a two way error component model. A one way error component model is specified if only country specific or time specific effects are valid but not both.

Assume a basic dynamic panel model specified as:-

$$Y_{it} = \delta Y_{it-1} + \beta' X'_{it} + \varepsilon_{it} \quad (1)$$

where Y_{it} is an $NT\ x\ 1$ vector of dependent and endogenous variables, X'_{it} represents an $NT\ x\ k$ vector of independent variables other than the lag of the dependent variable, β denotes a $k\ x\ m$ vector of slope coefficients and ε_{it} is the error term.

In a one way component model where only country specific effects are valid, the error term takes the form:-

$$\varepsilon_{it} = \mu_i + v_{it} \quad (2)$$

where μ_i represents country-specific effects and v_{it} the idiosyncratic error term. In case only time specific effects are valid, the error term takes the form:-

$$\varepsilon_{it} = \lambda_t + v_{it} \quad (3)$$

where λ_t represents time specific effects. If both country specific experiences and time specific effects need to be controlled for, then a two way error component model will be specified in which case the error term takes the form:-

$$\varepsilon_{it} = \mu_i + \lambda_t + v_{it} \quad (4)$$

The findings of the initial diagnostics of the datasets determine the type of model to be specified and the estimation methodology employed, based on which characteristics of the dataset need to be addressed in the estimation of the dataset. In the estimation process, other assumptions of the classical linear regression model such as heteroscedasticity and serial correlation are also addressed. Stationarity tests are done using Pesaran (2007) Cross-sectional Augmented Dickey-Fuller (CADF) unit root test that is applicable to panel data series, especially if the cross sections in the dataset are interdependent and heterogeneous (Pesaran, 2007).

4.3.3 Post-estimation Diagnostics

Each estimation approach has checks and balances that prove whether the results are robust and authentic enough to be accepted. These mostly include post-estimation diagnostics that confirm if the results are acceptable or not. These considerations are further explained based on the estimation approaches used in the estimation of the dataset.

4.4 ASEAN Region Initial Diagnostics

Table 4.2 details descriptive statistics of the variables for the ASEAN region. The descriptive statistics in Table 4.2 is a summary of the detailed information that is reflected in Appendix 1, Raw Data for ASEAN Region, which was used to generate this analysis.

From the Table, the mean HDI for the region is 0.67, which is characteristic of developing countries (UNDP, 2019b). The lowest HDI is 0.42 attributable to Cambodia in the year 2000. That year, Cambodia's peace was shattered by armed insurgents, vigilante justice, and a prevalence of corruption, as tensions between the UN and the government over the fate of former Khmer Rouge leaders challenged the country's fragile democracy. Massive floods that year also slowed economic progress (Langran, 2001). The highest HDI is 0.94 accounted for by Singapore in 2018. Singapore, a high income country categorized among the world's most competitive economies, ranks highest in human capital development and second highest in the 2018 Doing Business Index (World Bank, 2018a).

Further as reflected in the Table, the ASEAN region has a mean trade surplus of 5.29% of GDP. ASEAN is a major manufacturing hub, with dominant shares in sub-sectors such as chemicals, food and beverage, metals, and motor vehicles (Tonby et al., 2014).

Table 4.2: Descriptive Statistics ASEAN Region

Variable	Obs.	Mean	Std. Dev.	Min	Max
Hdi	190	0.67	0.13	0.42	0.94
Nx	190	5.29	12.18	-15.75	48.21
Gdpc	190	4.28	3.23	- 3.70	12.78
Gfcf	190	25.43	6.10	10.44	41.07
Un	190	3.03	2.10	0.49	9.32
Tech	190	75.07	52.78	0.03	175.60

Source: Author using STATA 13

Further on Table 4.2, a minimum trade deficit of -15.75% of GDP can be found in Lao PDR in 2015, which was caused by an extremely weak position in international competitiveness. Assessing the country's ability to enter international markets, the UN in Lao PDR in 2015 found the country in urgent need to fill a skills gap, suffered from low productivity, and had weak institutional capacities (UN, 2015). The maximum trade surplus of 48.21% of GDP is from Brunei in 2008 during which Brunei continued its prosperity based on abundant petroleum (oil and gas) resources. A WTO-conducted Trade Policy Review of the country in 2008 found that the country's petroleum resources accounted for 96% of exports and 94% of Government revenue in 2006 (WTO, 2008b).

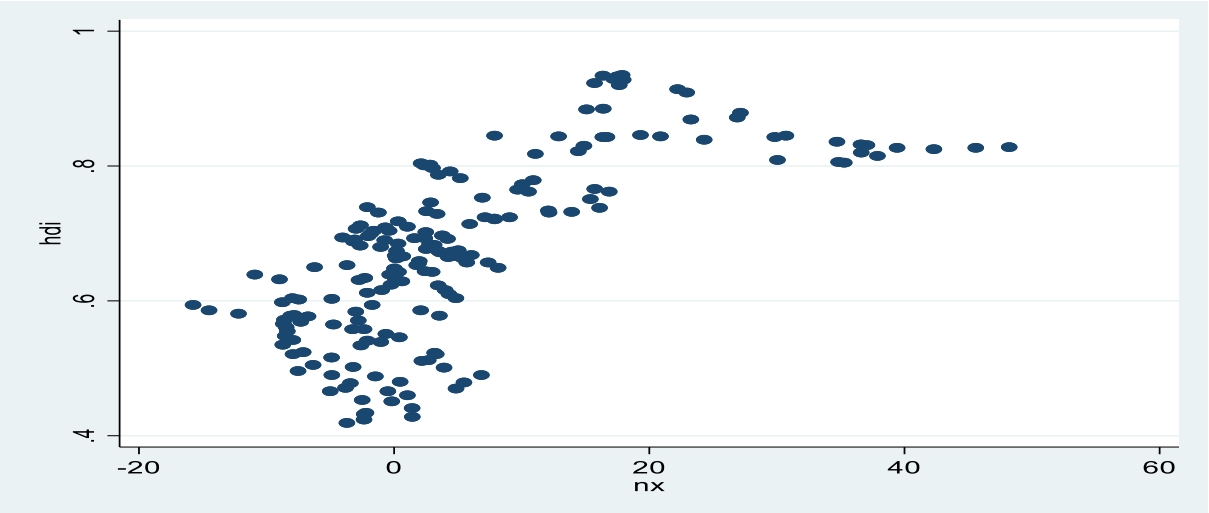
The Table further unveils highest GDP per capita of 12.78% that can be observed from Myanmar in 2003 as its economy continued to experience robust growth and resilience despite a global slowdown (World Bank, 2020a). The lowest of -3.70 is from Singapore in 2001 when the country went through one of its worst economic slumps, pummeled by the dot.com bust and deterioration of the electronic and computer chip industries (Hays, 2008). Brunei has the highest gross capital formation as a percentage of GDP in the region, registered in 2018 as well as the lowest registered in 2006. Mean unemployment in the ASEAN region over the sample period was 3.03% of the total labour force, with the highest of 9.32% accounted for by Brunei in 2017, principally caused by labour underutilization (Department of Statistics Brunei

Darussalam, 2017) due to a mismatch between the labour supply and employment opportunities (International Labour Organization [ILO], 2020) in Brunei.

The lowest unemployment level over the sample period, according to the Table, was in Thailand with 0.49% of the total labour force in 2014. In terms of technological progress, an average of 75 people out of 100 have mobile phone subscriptions, with the highest subscriptions occurring in Thailand in 2018, and the lowest in Myanmar in 2000. In Thailand, these trends can be attributed to high scores in 6 of the 7 Global Innovation Index areas: Institutions, Human Capital and Research, Market Sophistication, Business Sophistication, Knowledge & Technology Outputs, and Creative Outputs, in which Thailand scored above the average of the upper-middle income group (World Intellectual Property Organization [WIPO], 2018). In 2000, Myanmar, then known as Burma, continued to face stiff sanctions and increasing pressures from Western democracies which alleged that the ruling military junta perpetrates human rights abuses and suppresses the political opposition (Tin, 2001).

For easy comprehension and analytical fluency, the descriptive statistics on the interplay between human capital development and trade is presented in the form of a scattered graph – as shown in Figure 4.1:

Figure 4.1: Scatter Diagram of Human Development and Trade for ASEAN Countries



Source: Author's contribution

A scatter graph of human development and trade (as presented in Figure 4.1) shows a steep and positive relationship between the two key variables of investigation for the ASEAN region. The scattered dots suggests a robust revolve far above the mean line, suggesting a very strong relationship between the two measurable indicators. This relationship is further confirmed by cross correlation statistics that is presented in Table 4.3.

According to Table 4.3, there is a strong positive correlation coefficient of 0.70, significant at 1% level as depicted in the correlation matrix for the ASEAN region in Table 4.3. This implies that in principle, trade should enhance human development in the ASEAN countries in this study.

Table 4.3: Cross Correlation Analysis ASEAN Region Dataset

Variables	Hdi	Nx	Gdpc	Gfcf	Un	Tech.
Hdi	1					
Nx	0.70***	1				
Gdpc	0.60***	-0.47***	1			
Gfcf	0.05	-0.33***	0.01	1		
Un	0.58***	0.60***	-0.54***	-0.02	1	
Tech	0.67***	0.22***	-0.36***	0.20***	0.15	1

****/* significant at 1% and 10% respectively.*
Source: Author's compilation from empirical analysis of the data using STATA 13

From the correlation statistical Table (Table 4.3), it is evident that GDP per capita growth and technological progress both have strong positive correlation with human development in the ASEAN region as depicted by the correlation coefficients of 0.60 and 0.67 respectively. However, contrary to expectations, gross fixed capital formation has a very low (0.05) positive correlation with human development in ASEAN. Again, inconsistent with theory, unemployment is positively correlated with human development which is counter-intuitive. However, correlation does not guarantee causation, hence an empirical estimation of the dataset is required to ascertain the validity of results and reliability of findings.

Table 4.4: Panel Data [Characteristics of the Dataset – ASEAN]

Test	Test Static	Critical/Prob. Value	Inference
Joint Validity of cross-sectional individual effects $H_0 : \mu_1 = \mu_2 \ldots . \mu_{N-1} = 0$ H_A : *Not all equal to 0*	F Stat = 2.29	F(0.05, 9, 164) = 1.97	F stat > F critical: There are country specific effects.
Joint validity of time (period) fixed effects $H_0 : \lambda_1 = \ldots . \lambda_{T-1} = 0$ H_A: *Not all equal to 0*	F-Stat = 1.16	F(0.05, 17, 156) = 1.69	F stat < F critical: There are no time-specific effects.
Haussmann test: Nickel (1981) Bias H_0 :*E(Xit,/uit) = 0* H_0 :*E(Xit,/uit) ≠ 0*	$\square_5^2$ = 19.77	Prob = 0.00	There is endogeneity between the lag of the dependent variable and the error term.
Haussmann specification test: Other H_0 :*E(Xit,/uit) = 0* H_0 :*E(Xit,/uit) ≠ 0*	$\square_5^2$ = 1361.81	Prob = 0.00	There is endogeneity between the regressors and the error term.
Pesaran (2004) CD Test for Cross sectional dependence H_0: *corr* $(\mu i,t,\mu j,t) = 0$ *for* $i \neq j$ H_A: *corr* $(\mu i,t,\mu j,t) \neq 0$ *for some* $i \neq j$	CD = -0.49 (0.19)	Prob = 1.37	Cross-sections seemingly not interdependent

Source: Author's compilation from empirical analysis of the data using STATA 13

Table 4.4 details the results of initial diagnostic tests on the panel data characteristics of the ASEAN dataset. Tests for joint validity of individual and time effects show that country specific effects are valid but time specific effects are not valid. Hence, there is a need to specify a one way dynamic panel model to estimate the data on ASEAN countries.

The results of Hausmann tests for endogeneity reveals that the Nickell (1981) is not the only source of endogeneity in the model. The Pesaran (2004) test for cross sectional dependence yields conflicting results. While the probability value is not statistically significant, indicating that we fail to reject the null hypothesis that there are no interdependencies between the countries in the dataset, there is still a low positive correlation coefficient of 0.19 between the countries in the ASEAN panel. This denotes a mild level of interdependencies between the countries in the ASEAN panel.

4.5 SADC Region Initial Diagnostics

Descriptive statistics for the SADC region are captured in Table 4.5. The descriptive statistics in Table 4.5 is a summary of the detailed information that is reflected in Appendix 2: Raw Data for SADC Region, which was used to generate this analysis.

According to the Table, SADC has a lower mean HDI (0.52) compared to ASEAN (0.67). This indicates higher life expectancy, skills development and wellbeing in ASEAN than in SADC. The lowest HDI of 0.36 is attributable to Malawi in the year 2000 during which there was a food crisis. Malawi is one of the poorest countries in the world. In the early 2000s, it suffered a series of floods and famines that resulted in several hundred deaths and woefully undermined its human development (IMF, 2002). The highest HDI is accounted for by Mauritius in 2018. Mauritius is much more developed and better governed than most of its SADC counterparts.

Similarly, SADC has a mean regional trade deficit of -4.17% of GDP compared to ASEAN's regional trade surplus of 5.29% of GDP. This is driven by the higher level of manufacturing in the ASEAN region, which is the manufacturing hub of the world (Tonby et al., 2014), compared to SADC, a natural resource endowed and primary commodity exporting region. Again, SADC has a lower mean of approximately 49 people out of 100 with mobile phone subscriptions compared to 75 in ASEAN. This signals a higher level of technological progress in ASEAN than in SADC, driven by higher levels of technological innovation in individual ASEAN countries compared to their SADC counterparts.

Table 4.5: Descriptive Statistics SADC Region

Variable	Obs.	Mean	Std. Dev.	Min	Max
Hdi	266	0.52	0.11	0.36	0.80
Nx	266	-4.17	9.31	-41.53	21.75
Gdpc	266	2.18	4.03	-18.49	18.07
Gfcf	266	23.43	9.26	1.53	53.99
Un	266	12.69	9.75	0.60	9.32
Tech	266	48.77	44.08	0.03	163.88

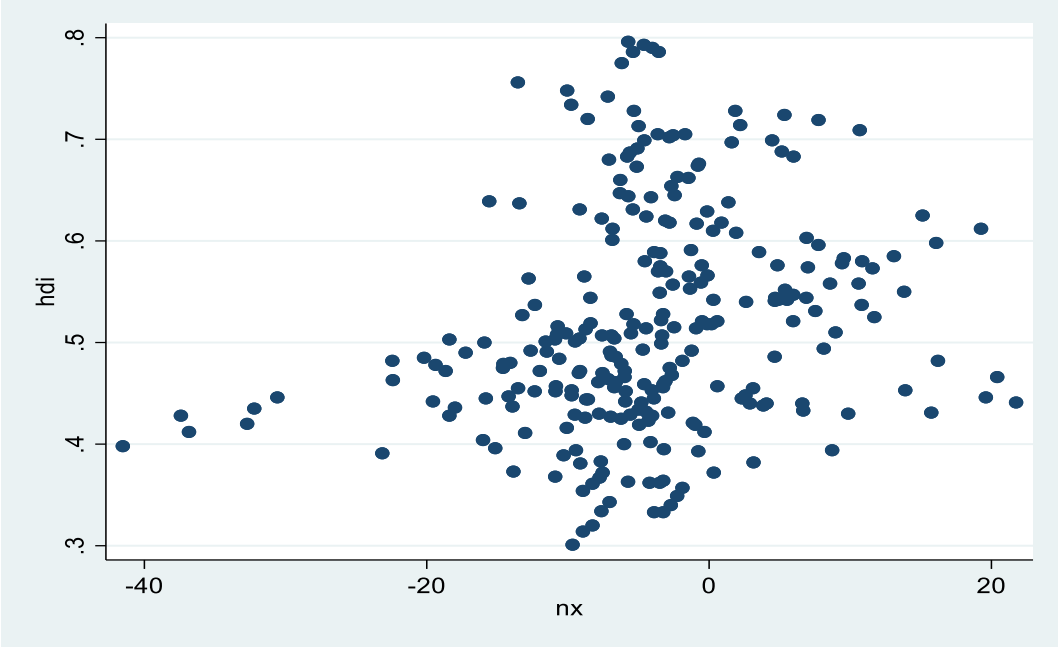
Source: Author, using STATA 13

Table 4.5 shows that the mean levels of GDP per capita and gross fixed capital formation in SADC are below ASEAN levels. SADC also registers four times the mean level of

unemployment (12.69) across the sample period than in ASEAN (3.03) as a percentage of total labour force.

It can be seen from these descriptive statistics that the ASEAN region has stronger economic attributes and a higher level of human development than the SADC region. To further nuance these dynamics in an easy and comprehensible manner, we present the relationship between human capital development and trade in scatter plot format for the SADC region – as done for the ASEAN region in Figure 4.1:

Figure 4.2: Scatter Diagram of Human Development and Trade for SADC Countries



Source: Author's contribution

According to Figure 4.2, the scatter graph between human development and trade in SADC shows a positive but weaker covariation compared to ASEAN. This is confirmed by the much weaker positive correlation coefficient of 0.23 (as opposed to 0.70 for ASEAN), which is significant at 1% level.

This done, we proceed to investigate the level and kind of relationships between the measurable indicators adopted in the estimation. This was done using cross correlation analysis. The result of the analysis is presented in Table 4.6.

Table 4.6: Cross Correlation Analysis for SADC Region Dataset

Variables	Hdi	Nx	Gdpc	Gfcf	Un	Tech.
Hdi	1					
Nx	0.23***	1				
Gdpc	0.02	0.08	1			
Gfcf	0.07	-0.17***	0.22***	1		
Un	0.29***	0.42***	0.09	-0.04	1	
Tech	0.77***	-0.00	0.04	0.13	0.22***	1

****/* significant at 1% and 10% respectively*
Source: Author's compilation from empirical analysis of the data using STATA 13

From Table 4.6, technological progress has a higher correlation with human development in SADC at 0.77, significant at 1% level, than in ASEAN. Similar to ASEAN, unemployment shows a positive correlation with human development which is counter-intuitive. A similar result is obtained for trade and human development interaction at 1% level, with 0.23. Extensively, the relationship between and amongst other variables are considerably weak (-0.00 for the interaction of trade and technology; 0.07 for human development and gross fixed capita formation, etc.).

This done, we repeat the same diagnostic exercise of determining the characteristics of the panel data used for the estimation of SADC as done for ASEAN. The result of this analysis is presented in Table 4.7.

Table 4.7: Panel Data [Characteristics of the Dataset – SADC]

Test	Test Static	Critical/Prob. Value	Inference
Joint Validity of cross-sectional individual effects $H_0 : \mu_1 = \mu_2 \ldots . \mu_{N-1} = 0$ H_A : *Not all equal to 0*	F Stat = 2.46	F(0.05, 13, 232) = 1.76	F stat > F critical: Country specific effects are valid
Joint validity of time (period) fixed effects $H_0 : \lambda_1 = \ldots . \lambda_{T-1} = 0$ H_A: *Not all equal to 0*	F-Stat = 1.39	F(0.05, 17, 228) = 1.67	F stat < F critical: Time-specific fixed effects are not valid.
Haussmann test: Nickel (1981) Bias H_0 :*E(Xit,/uit) = 0* H_0 :*E(Xit,/uit) ≠ 0*	$\square_6^2 = 28.93$	Prob = 0.00	There is endogeneity between the lag of the dependent variable and the error term.
Haussmann specification test: Other H_0 :*E(Xit,/uit) = 0* H_0 :*E(Xit,/uit) ≠ 0*	$\square_5^2 = 26.47$	Prob = 0.00	There is endogeneity between the regressors and the error term.
Pesaran (2004) CD Test for Cross sectional dependence H_0: *corr* $(\mu i,t,\mu j,t) = 0$ *for* $i \neq j$ H_A: *corr* $(\mu i,t,\mu j,t) \neq 0$ *for some* $i \neq j$	CD = 2.77 (0.23)	Prob = 0.00	Cross-sections are interdependent

Source: Author's compilation from empirical analysis of the data using STATA 13

Table 4.7 shows details of initial diagnostic test results for the SADC dataset. Similar to the ASEAN results, country specific effects are valid but time specific effects are not valid, thus we need to specify a one way dynamic panel model to estimate the SADC data.

The SADC dataset also depicts multiple sources of endogeneity beside the Nickell (1981) bias. Contrary to the ASEAN dataset, the Pesaran (2004) test for cross sectional dependence shows that the countries in the SADC dataset are clearly interdependent. The probability value is statistically significant at 1% level, indicating that we reject the null hypothesis of no cross sectional dependence between the countries in the SADC panel. As per the results of initial diagnostic tests on the SADC dataset, the estimation of the SADC dataset must control for multiple sources of endogeneity, country specific effects and cross sectional dependence of the error term.

Given the divergence of the pre-estimation diagnostic results for ASEAN and SADC datasets, it becomes important to accommodate a series of estimation weaknesses, especially country

specific effects and idiosyncratic error correction approach. To this effect, we present the model specification and the technique adopted in the process in section 4.6.

4.6 Model Specification and Estimation Technique

As per the panel data characteristics of both ASEAN and SADC datasets this study employs methodologies that control for country specific effects, multiple sources of endogeneity and mild levels of cross sectional dependence.

In the initial estimation phase, this study specifies a one way dynamic panel model stipulated in (5) below as:

$$HDI_{it} = \alpha + HDI_{it} - 1 + NX_{it} + GDPC_{it} + GFCF_{it} + UN_{it} + TECH_{it} + \mu_i + v_{it} \qquad (5)$$

Where, μ_i represents individual country effects and v_{it} the idiosyncratic error term.

In specific terms and based on the results of the initial diagnostics for both the ASEAN and SADC datasets, two main estimations are made in this study. First, full sample estimations are made for each dataset, i.e. ASEAN and SADC datasets, followed by country specific estimations that further control for individual effects and cross sectional dependence of the error term. This is because sample-wide estimations are said to conceal country specific differences. Empirical literature posits a number of such estimation approaches. In the full sample estimations, this study uses the Feasible Generalised Least Squares (FGLS) estimation approach of Parks (1967) and Kmenta (1986) and the two-step system GMM estimation technique of Arellano and Bover (1995) with forward orthogonal deviations and Windmeijer (2005) corrected standard errors.

The Feasible Generalised Least Squares estimation approach of Parks (1967) and Kmenta (1986) is perfectly suited to data with individual effects, group-wise heteroscedasticity, serial correlation and cross-sectional dependence of the error term (Hicks, 1994; Kmenta, 1986). Furthermore, the FGLS estimation technique is appropriate for datasets in which fixed effects or random effects are valid. In addition, FGLS involves two subsequent transformations. The first transformation removes serial correlation in the errors within cross sections and across cross section. In the process, this transformation also corrects for panel heteroscedasticity (Beck and Katz, 1995). The second transformation uses the residuals from the first transformation to estimate the contemporaneous correlation of the errors, to allow for an estimation without any complications in the errors. This process yields consistent estimators of

the elements of the variance-covariance matrix, which then yields the desired coefficient estimates and their respective standard errors (Kmenta, 1986). However in the presence of multiple sources of endogeneity, the FGLS is known to lose some degree of efficiency (Kmenta, 1986). Thus to ensure robustness, the two-step system GMM estimation technique of Arellano and Bover (1995) is also employed.

The two-step system GMM estimation technique of Arellano and Bover (1995) with forward orthogonal deviations and Windmeijer (2005) corrected standard errors is suitable to control for country specific effects as characteristic of both the ASEAN and SADC datasets. Country specific effects are removed using forward orthogonal deviations instead of the usual first differencing approaches used in Generalised Method of Moment (GMM) and instrumental variable estimation approaches. This is because, the first differencing approach is known to generate weak instruments due to their inability to effectively eliminate serial correlation.

Using forward orthogonal deviations instead of first differencing makes it possible to use one-period lags of the regressors as valid instruments since they are not correlated with the transformed error term (Love and Zichinno, 2006; Amuedo-Dorantes and Pozo, 2004). Additionally, the forward orthogonal deviations approach preserves homoscedasticity, prevents serial correlation and also preserves the orthogonality between transformed variables and lagged regressors - thereby addressing endogeneity as well (Arellano and Bover, 1995). It is important to note that there are three key post estimation diagnostic tests that the two-step system GMM estimation results need to satisfy to be regarded as robust. These are the Arellano and Bond (1991) test for second-order serial correlation, the Hansen (1982) test for over-identification, which establishes that the model is well specified, and the Difference-in-Hansen test that the instrument set used to address the endogeneity is strictly exogenous.

The differencing and transformation procedures involved in the GMM and FGLS approaches automatically also corrects for the order of integration of the variables used in this study. Hence, there was no need to conduct a cointegration test in this study. The variables are estimated in levels.

To start with and in the country specific estimations, Swamy's Random coefficient estimation approach is used. Besides correcting for country specific effects and cross sectional dependence of the error term, it also yields country specific results further enabling cross country

comparability in the analysis. The results of the various estimations and diagnostic approaches are presented in Chapter 5 of this study (Empirical Results).

Chapter 5

Empirical Results

5.1 Introduction

This chapter details the empirical results of estimating the ASEAN and SADC datasets using dynamic panel data estimation approaches as described in the previous chapter (Chapter 4). The data is estimated at two levels. The first estimation entails sample-wide estimations and the second estimation delves into country specific analysis to address the heterogeneity of the dataset as revealed by initial diagnostics of the dataset, which was presented in Chapter 4.

5.2 ASEAN Region

It should be noted that the first model is estimated using FGLS by Parks (1967) and Kmenta (1986) to control for cross sectional dependence whilst the two step system GMM by Arellano and Bover (1995) with forward orthogonal deviations is used in model 2 to control for the multiple sources of endogeneity as characteristic of the ASEAN dataset. The results of the sample-wide estimation of the ASEAN dataset are shown in Table 5.1.

Table 5.1: Sample-wide Results for the ASEAN Region

Dep. variable HDI	Model 1	Model 2
Lagged HDI	0.98***	0.88***
	[0.003]	[0.03]
Trade	0.0001***	0.0001*
	[0.0003]	[0.0001]
Per capita income	0.0004***	0.0004*
	[0.00007]	[0.0002]
Gross fixed capital formation	0001**	0.0002*
	[0.00003]	[0.00006]
Unemployment	0.00002	-0.001***
	[0.0001]	[0.0003]
Technological progress	0.0001**	0.0001**
	[0.000054]	[0.00002]
Constant	0.02***	
	[0.002]	
R squared		
F Stat Prob.		
Wald X^2	0.00	
ABond 2nd Order Serial correlation test		Prob > z = 0.31
Sargan test for overidentification		Prob > X^2 = 0.82
Diff. in Hansen test for exogeneity of instrument set		Prob > X^2 = 0.99

Note: ***/**/* denote 1%/5%/10% level of statistical significance. Standard errors in [ ]. Model 1 uses Feasible Generalised Least Squares by Parks (1967) and Kmenta (1986); Model 2 using Two Step System GMM with forward orthogonal deviations Arellano and Bover (1995).

Source: Author's compilation from empirical analysis of the data using STATA 13

The estimation approaches used meet all post-estimation diagnostics. The Wald test Chi-squared probability is statistically significant, indicating that the independent variables play a role in determining changes in human development in the ASEAN region. In the GMM estimation, the Arellano and Bond (1991) test for second order serial correlation, fails to reject the null hypothesis of no serial correlation. In addition, the Sargan test for identification restrictions fails to reject the null that the model is well specified. Finally the difference in Hansen test for the exogeneity of the instrument set fails to reject the null that the instruments are exogenous, and it adequately addresses the endogeneity identified in the model. However further analysis of the data reveals country specific differences.

In the two estimation approaches, the results show that human development is a dynamic concept. The level of human development today is strongly determined by its past levels as depicted by the coefficient of the lagged dependent variable, which is significant at 1% level. The other coefficients are quite mild, however trade seems to have a positive effect on human development. This means that trade in the ASEAN region, when the countries are estimated together, has a positive impact on human development in the region. Similarly, and consistent with economic theory and *a priori* expectations as per the earlier correlation analysis, per capita income, gross fixed capital formation and technological progress have a positive effect on human development in the ASEAN region. Consistent with theory and *a priori* expectations, unemployment has a negative effect on human development in ASEAN.

A detailed analysis of pooled estimation result suggests a bi-systemic reality of both enablers and disenablers of human development in ASEAN countries. Enablers facilitate human development, while disenablers deter human development. Table 5.2 shows the country-specific estimation results for the ASEAN Region (Dependent Variable HDI):

Table 5.2. Country specific results for ASEAN Region. Dependent Variable HDI

	Nx	Gdpc	Gfcf	Un_ilo	Tech
Brunei	0.001 [0.0004]	-0.001 [0.001]	0.0005[0.0004]	0.003 [0.003]	0.0003*** [0.0001]
Cambodia	-0.01*** [0.001]	0.001 [0.001]	0.001 [0.001]	0.06*** [0.01]	0.0004*** [0.0001]
Indonesia	-0.0002 [0.001]	-0.001 [0.003]	0.001 [0.001]	0.003 [0.003]	0.001*** [0.0001]
LAO PDR	-0.003***[0.001]	0.005 [0.004]	0.0004[0.0008]	-0.04***[0.01]	0.001*** [0.0001]
Malaysia	-0.001***[0.001]	0.001 [0.001]	-0.001 [0.001]	0.01 [0.01]	0.001*** [0.0001]
Myanmar	0.003** [0.001]	-0.01*** [0.002]	0.002**[0.001]	-0.03 [0.01]***	0.001*** [0.0001]
Philippines	0.0002 [0.001]	0.001 [0.001]	0.001 [0.001]	-0.01**[0.005]	0.001*** [0.0001]
Singapore	-0.003***[0.001]	0.001* [0.001]	-0.004***[0.001]	-0.01*** [0.003]	0.001*** [0.0001]
Thailand	0.0003 [0.001]	-0.0001[0.0007]	0.001 [0.001]	-0.01* [0.01]	0.001*** [0.0001]
Vietnam	-0.001 [0.001]	0.01***[0.003]	-0.001* [0.01]	0.01 [0.01]	0.001*** [0.0001]

Note: ***/**/* denotes a 1/5/10 per cent level of significance; standard errors in square parenthesis. Estimation done by Swamy Random Coefficients

Using the empirical results from country-specific analysis of the ASEAN dataset, this analysis is depicted in Table 5.3.

Table 5.3: Country specific Enablers and Disenablers of Human Development in ASEAN Countries

Country	Enablers	Disenablers
Brunei	Technology	*Other variables insignificant*
Cambodia	Technology	Trade, unemployment
Indonesia	Technology	*Other variables insignificant*
Lao PDR	Technology	Trade, unemployment
Malaysia	Technology	Trade
Myanmar	Trade, gross fixed capital formation, technology	Per capita income, unemployment
Philippines	Technology	Unemployment
Singapore	Economic growth, technology	Trade, gross fixed capital formation, unemployment
Thailand	Technology	Unemployment
Vietnam	Economic growth, technology	Gross fixed capital formation.

Source: Author's empirical results from country specific analysis of the ASEAN dataset. The estimation results can be found Table 5.2.

On a country specific basis, technological progress seems to stand out as the most consistent enabler of human development in each of the ASEAN countries. Trade seems to be relevant to human development only in Myanmar whose economy is largely driven by agriculture, including in opium (UN Office on Drugs and Crime [UNODC], 2019). In terms of disenablers, unemployment stands out as the most consistent barrier to human development in each of the ASEAN countries, except in Malaysia and Vietnam where trade and gross fixed capital formation emerge as the strongest inhibitors to human development respectively. This is most possibly because trade reforms are capable of either enhancing equity or deepening inequality, depending on initial conditions in terms of access to incomes, assets, and others (UNDP, 2011). In Malaysia and Vietnam, trade may have intensified inequality because of the low initial access to income, and weak capital ownership.

5.3 SADC Region

The results of the SADC region are quite similar to the results of the ASEAN estimation. As previously done for the ASEAN region, sample wide estimations are complemented with country specific estimations to address the heterogeneity among countries in the dataset. Table 5.4 details the sample-wide results of the SADC region estimation. The same estimation methods are used for models 1 and 2 respectively as in the case of the ASEAN region estimation.

Table 5.4: Sample-wide Results for the SADC Region

Dep. variable HDI	Model 1	Model 2
Lagged HDI	0.97***	0.89***
	[0.002]	[0.01]
Trade	0.0001***	0.00002
	[0.0002]	[0.00003]
Per capita income	0.001***	0.001***
	[0.00002]	[0.0001]
Gross fixed capital formation	0.00002*	0.0001
	[0.00002]	[0.0001]
Unemployment	-0.0001***	-0.001***
	[0.00002]	[0.0001]
Technological progress	0.0001***	0.0001***
	[0.000051]	[0.00002]
Constant	0.02***	
	[0.0008]	
Wald X^2	0.00	
ABond 2nd Order Serial correlation test		Prob > z = 0.30
Sargan test for overidentification		Prob > X^2 = 0.71
Diff. in Hansen test for exogeneity of instrument set		Prob > X^2 = 0.40

Note: ***/**/* denote 1%/5%/10% level of statistical significance. Standard errors in [ ]. Model 1 uses Feasible Generalised Least Squares by Parks (1967) and Kmenta (1986); Model 2 using Two Step System GMM with forward orthogonal deviations Arellano and Bover (1995).
Source: Author's compilation from empirical analysis of the data using STATA 13

From Table 5.4, human development exhibits a high degree of persistence for the SADC region as well, warranting the use of a dynamic panel estimation approach. Consistent with economic theory and *a priori* expectations, trade, per capita income, gross fixed capital formation and

technological progress all have positive effects on human development in the SADC region. As expected, unemployment is detrimental to human development in SADC. This implies that when the countries in the SADC region are estimated in a pooled panel environment and interacted with trade, economic growth, capital accumulation and technological progress are the key enhancers of human development and wellbeing in the SADC region, while unemployment is the main barrier to human development in the SADC region. This is consistent with the high levels of unemployment in the SADC region, especially among the youth, which translates further into high levels of poverty and inequality. Youth and women of the region are the most affected by unemployment, underemployment, and vulnerable employment characterized by insufficient income, low productivity, and grim working conditions that disregard fundamental rights of workers (SADC, 2012a).

However at the individual country level, differences emerge in terms of what the key drivers of human development are on a country basis. Table 5.5 shows the country specific results for the SADC Region (Dependent Variable HDI) while Table 5.6 shows the results of the country specific estimations for the SADC region.

Table 5.5: Country specific results for SADC Region. Dependent Variable HDI

	Nx	Gdpc	Gfcf	Un_ilo	Tech
Angola	-0.001 [0.001]	-0.0003 [0.001]	-0.002** [0.001]	0.01***[0.001]	0.00*** [0.0002]
Botswana	-0.0-1 [0.001]	0.0003 [0.0006]	-0.003***[0.001]	-0.001 [0.001]	0.001*** [0.0001]
Congo DR	0.001 [0.001]	0.001 [0.001]	0.002*** [0.0004]	0.01** [0.003]	0.001*** [0.0002]
Eswatini	-0.001**[0.0003]	-0.001 [0.001]	-0.01*** [0.001]	-0.02***[0.001]	0.0002 [0.0001]
Lesotho	-0.0003[0.0002]	-0.001**[0.001]	-0.0001 [0.001]	0.01 [0.01]	0.001*** [0.0001]
Madagascar	0.001* [0.001]	0.0004 [0.0004]	0.001**[0.0004]	-0.004 [0.001]***	0.001*** [0.0001]
Malawi	0.0001 [0.0003]	0.0002[0.0004]	0.0001[0.0003]	-0.01***[0.003]	0.002*** [0.0002]
Mauritius	-0.001 [0.001]	0.001 [0.001]	-0.005***[0.001]	-0.008** [0.004]	0.001** [0.0002]
Mozambique	-0.001 [0.001]	-0.003*** [0.001]	-0.001 [0.001]	0.005**[0.002]	0.002*** [0.0002]
Namibia	-0.0005 [0.0005]	0.00005[0.0007]	-0.001 [0.001]	0.001 [0.002]	0.001*** [0.0001]
South Africa	0.0003 [0.0006]	-0.002***[0.001]	-0.004***[0.001]	-0.001 [0.001]	0.001***[0.0001]
Tanzania	0.002***[0.001]	0.001**[0.001]	0.003***[0.0003]	0.006**[0.003]	0.001***[0.0001]
Zambia	0.001***[0.0004]	0.002*[0.001]	0.002**[0.001]	-0.0004[0.001]	0.001***[0.0001]
Zimbabwe	0.001 [0.001]	-0.001[0.001]	0.001 [0.001]	0.01 [0.003]	0.001***[0.0001]

Note: ***/**/* denotes a 1/5/10 per cent level of significance; standard errors in square parenthesis. Estimation done by Swamy Random Coefficients.

Table 5.6: Country specific Enablers and Disenablers of Human Development in SADC Countries

Country	Enablers	Disenablers
Angola	Technology	Gross fixed capital formation, unemployment
Botswana	Technology	Gross fixed capital formation
Congo DRC	Technology, gross fixed capital formation,	*No significant variables*
Eswatini	*No significant variables*	Trade, gross fixed capital formation, unemployment
Lesotho	Technology	Per capita income
Madagascar	Trade, gross fixed capital formation, technology	Per capita income, unemployment
Malawi	Technology	Unemployment
Mauritius	Per capita income, technology	Trade, gross fixed capital formation, unemployment
Mozambique	Technology	Per capita income,
Namibia	Technology	*No significant variables*
South Africa	Trade, Technology	Unemployment, per capital income, gross fixed capital formation
Tanzania	Trade, per capita income, gross fixed capital formation, technology	*No significant variables*
Zambia	Trade, per capita income, gross fixed capital formation, technology	unemployment
Zimbabwe	Technology	Per capita income

Source: Author's empirical results from country specific analysis of the SADC dataset. The estimation results can be found in Table 5.5.

Country specific results for the SADC region reveal a greater extent of country-level heterogeneity. From the analysis, evidence suggests that trade is a key driver of human development in Madagascar, South Africa, Tanzania and Zambia. In Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia and Zimbabwe, technological progress emerges as the sole vehicle through which human development can be enhanced. Gross fixed capital formation can enhance human capital development in Congo DRC, Madagascar, Tanzania and

Zambia. Per capita income is relevant to human development in Mauritius, Tanzania and Zambia. This probably speaks to higher levels of inclusivity in the generation of this growth or a better distribution of the gains from growth. In terms of inhibitors of human development, unemployment features strongly in most of the countries, namely Angola, Eswatini, Madagascar, Malawi, Mauritius and Zambia. Despite South Africa's high level of unemployment, the latter doesn't show empirically as a major barrier to human development due to well established social protection schemes that cover millions of unemployed in South Africa and play a key role in lower income deciles of South Africa's income distribution. In 2018, social grants accounted for 45.2% of household income in South Africa, second only to salaries at 64.8%, and was the main source of income for almost one-fifth (19.9%) of households nationally (Statistics South Africa, 2019).

Chapter 6

Conclusion and Policy Recommendations

6.1 Summary of the Study

6.1.1 Recapitulation

The objective of the research was to establish empirically whether international trade has resulted in the enhancement of human development in the SADC and ASEAN regions. This included the sub-objectives of analysing the relationship between international trade and human development, establishing similarities and differences in the experiences of the SADC and ASEAN regions, and exploring the policy implications of the findings towards the trade and development policy outlook for the two regions.

There is a general agreement among economists and policy makers that international trade is a vehicle towards human development through economic growth and prosperity. The World Trade Organization reports that trade results not only in GDP growth but also in the achievement of other societal objectives, including human development.

Trade among countries was historically based on necessity arising from dissimilarities in natural endowments and differences in skill level, technology and stage of development. If not for necessity, trade was not viewed with favour. Mercantilist states of the sixteenth century sought to increase their gold reserves by restraining imports and seeking to produce needed goods as independently from other states as possible. However, Adam Smith's theory of absolute advantage and David Ricardo's consequent theory of comparative advantage challenged this view by identifying gains from trade, including not only increased value of production resulting from specialization, but also gains to human development through increased incomes, more and better choices of goods to consume, skills improvement and technological innovation, capital accumulation and human productivity, and other benefits of overall economic development.

The theory that there are gains to be had from international trade is strengthened by the phenomenal growth of the East Asian Tiger economies from the 1970s to the present, grounded on an economic strategy of becoming manufacturers for the export market and thereby vastly improving their human development standards. Owing to similarities in natural resources and a common history of colonial rule and subsistence economies, the East Asian strategy was

recommended as a suitable model for Africa to follow. However, half a century after a common past, many countries in Africa remain as poor as they were fifty years ago. Subsistence farming remains the economic backbone, with exports limited to extractive industries that benefit very few.

The variance in the development outcomes of Asia and Africa became the subject of comparative studies aimed at detecting the reasons for the divergence and identifying lessons from Asia that may be implemented in Africa. The resultant prescriptions ranged from expanding expenditures on basic needs such as education to improving agriculture and rural infrastructure, and better governance with an intent to develop. However, most of the literature are focused on finding the drivers of the divergence and identifying ways to re-align the paths of Asia and Africa. To date, little attention has been made to measure empirically the developmental impact of trade in these two regions. Moreover, most of the studies did not use panel data economic approaches. This dearth in the literature motivated this study.

This study applied empirical evidence to investigate the impact of trade on human development in these two regions. It enlarges the small body of scarce literature on the developmental impact of trade in these developing regions by comparing ASEAN and SADC. The choice of ASEAN and SADC was deliberate. Both organizations are among the most economically central and active in their respective regions, and they have entered into regional trade agreements with the aim of enhancing regional integration, economic growth, job creation and ultimately human development. The year 2020 is SADC's 33rd anniversary, and ASEAN's 53rd, behoving a current and thorough examination of the empirical evidence as to whether or not improvements in international trade has led to an improvement in human development, and in that respect, how the experiences of the two regions compare to each other in the trade and development nexus.

The study measured human development through the UN's Human Development Index. Aside from a regional comparison, it also ascertained whether there were country specific differences in the experience of enhancing human development through trade as well as its implications for regionalism in trade policy outlook in ASEAN and SADC. The role of other macroeconomic variables that relate to trade through their impact on economic growth were also explored. Drawing from endogenous growth models, these variables included per capita income, gross fixed capital formation, employment, and technological progress. Finally, this

study identified the policy implications of its findings to the trade and development policy nexus in ASEAN and SADC.

6.1.2 Restatement of Methodology

The study tested the hypotheses that there is a direct positive relationship between HDI and international trade, per capita income, capital accumulation, and technological progress. Unemployment is an exception, which is expected to have a negative coefficient.

As a result of data limitations, a total of 14 countries were estimated for SADC in comparison to 10 ASEAN countries. Data was acquired from the World Bank and the United Nations platforms from 2000 to 2018. The variable selection and model specification was based on basic Keynesian macroeconomic and endogenous growth models and comparative advantage theory.

The estimation approach followed three key steps; initial diagnostics of the dataset to establish the longitudinal and panel data characteristics of the dataset, model specification and estimation and post estimation diagnostics. Two estimations were done: first, sample-wide estimations for each region, followed by country specific estimations. The results of the initial diagnostics of the dataset revealed that country specific effects were valid but not time specific effects. Consequently, a one way error component model was specified. Further diagnostics of the dataset showed that there was the need to control for multiple sources of endogeneity and cross sectional dependence of the error term. The appropriate dynamic panel data estimation approaches were used to estimate the dataset, in the process controlling for country specific effects, multiple sources of endogeneity and cross sectional dependence of the error term. Post estimation diagnostics addressed residual diagnostics in relation to other assumptions of the classical linear regression model such as serial correlation, heteroscedasticity and model misspecification and exogeneity of the instrument set.

6.1.3 Summary of Empirical Findings

The sample-wide results for both SADC and ASEAN showed that trade openness enhances human development in each of the two regions, as captured by the human development index. Gross fixed capital formation, economic growth and technological progress all had positive effects on human development in these two regions. In the cases of both regions, unemployment had a counter-intuitive positive effect on human development. This raises issues with the nature and quality of the employment in the region and the extent to which that

enhances wellbeing or not, and whether there are issues of cheap production labour, vulnerable employment, or some other similar concerns. The ASEAN region had a higher mean level of economic growth, a trade surplus and higher level of technological progress than in the SADC. This is consistent with the manufacturing focus of the ASEAN region, compared to the primary commodity exporting nature of SADC, which has a propensity to fuel a trade deficit. However, in each region there were country specific differences in terms of what drives human development.

In addition, country specific estimations for ASEAN showed that technological progress was the main enabler of human development, whilst unemployment played a major role as a barrier to human development. Similar to the ASEAN region, technological progress was the most frequently occurring enabler of human development in the SADC region. This implies that trade openness enhanced by technological advancements may have a much better impact on human development in individual ASEAN and SADC countries than trade on its own.

Thus technological advancements in relation to the manufacturing focus of the ASEAN region speaks to higher levels of proprietary innovations and patents. The ASEAN Patent Examination Cooperation (ASPEC), established in June 2009, fast-tracks patent protection and reduces the complexity and costs of the patenting process in ASEAN (ASEAN, 2020b). In a collective effort to further fuel economic growth, ASPEC launched the ASPEC Acceleration for industry 4.0 Infrastructure and Manufacturing (ASPEC AIM) in 2019, which was charged with the responsibility of expediting Industry 4.0 patent applications within a period of 6 months as the standardised turnaround time for first office action (ASEAN, 2020b).

With respect to the SADC region, technological advancements in relation to trade could speak to the need to leverage the appropriate technologies to integrate forward along the production value chain, from producing and exporting primary and raw agricultural products and mineral resources into agro-processing and beneficiation of mineral resources and other value added exports. In a few instances, gross fixed capital formation in addition to technology, such as for Congo DRC, Madagascar, Zambia and Tanzania, was an additional driver of human development. This shows that infrastructure development or gross fixed capital formation may greatly enhance human development in these countries. Trade in addition to technology, also emerged as a key driver of human development for Madagascar, South Africa, Tanzania and Zambia.

In Mauritius, Tanzania and Zambia, economic growth was the main driver of human development beside technological progress. With respect to barriers to human development, unemployment features strongly in most of the countries. South Africa's well established social protection schemes tend to mitigate the impact of its high unemployment levels on human development. These country specific differences as well as similarities in the findings of this study have implications for national and regional trade policy formulation in ASEAN and SADC.

6.2 Contributions of the Study

6.2.1 Theoretical Contribution

First, this study adds to scarce literature on how international trade impacts on human development in developing countries, comparing two developing regions, ASEAN and SADC. Studies prior have looked more towards developed countries than developing countries for comparison. Second, most literature on the two regions look into factors driving the disparity in their development trajectories and outcomes over the past half century, and not on how trade impacts on human development in both regions. The literature on the disparity between the two regions stems from their historical and structural similarities as well as parallels in their economic fundamentals and endowments half a century ago. Fifty years down the line, ASEAN has developed at a better pace than SADC, even though both regions resorted to international trade and regional trade agreements as their strategy for growth and development. This study advances the existing literature by looking specifically into the impact of international trade on human development in SADC and ASEAN. Third, this study further enriches existing literature by likewise ascertaining how relevant variables that also relate to international trade through their impact on economic growth drive human development in ASEAN and SADC. The policy implications of the findings of this study should highlight any new considerations that should be made to regional trade agreements aimed at enhancing human development in the two regions.

6.2.2 Methodological Contribution

The study contributes in the area of methodology by using dynamic panel data estimation techniques that make provision for country specific effects, endogeneity, heteroscedasticity, serial correlation, and cross-sectional dependence of the error term. This thorough empirical

investigation of the data on the two regions adds to methodological approaches in trade-related research on these two developing regions.

6.2.3 Empirical Contribution

This study generates data for SADC and ASEAN that were not in existence before. The initial diagnostics of the dataset generates scatter diagrams, descriptive analysis and pairwise correlation analysis data. The test for the panel data characteristics of the dataset, including testing for the validity of individual country effects and any time specific experiences unique to particular countries in the dataset, and the post-estimation diagnostics, yield data that have not yet been generated prior to this study. Therefore, the data produced in this study are contributions to the empirical data on SADC and ASEAN.

6.3 Policy Recommendations

The ASEAN and SADC regions have embarked on several RTAs and protocols aimed at enhancing regional growth, creating jobs and ultimately improving the living standards of their populace. The findings of this study from the sample-wide estimations show that technological progress was the key vehicle through which human development could be enhanced in all the individual countries in this panel. This means that technological advancement to trade, the required infrastructure, and the positioning in production value chains must be the focus of trade policy if it aims not only to create jobs but also to improve living standards in individual ASEAN and SADC countries. However, country specific differences emerging from the results of country specific estimations show that to enhance the impact of trade on human development, there will be differences in policy pathways. In some countries in SADC, such as Mauritius, Tanzania and Zambia, trade on its own was not enough to improve human development. Trade policies are considered as catalysts for human development, but the efficiency of this intervention is underpinned by economic growth that leverages technological progress. In Congo DRC, Madagascar, Zambia and Tanzania, trade enhancing infrastructure development and technological progress should be the focus of trade and development policy, if the aim is to enhance human development through trade.

The need for differences in policy outlook in individual countries aimed at enhancing human development through trade raises additional implications for RTAs such as the SADC Industrialisation Strategy and Roadmap, and the most recent African Continental Free Trade Area which has just been ratified by most African countries. These RTAs also aim to enhance

regional integration. The focus of policy should be on value addition to primary commodities through technological advancements, the creation of regional production value chains, integration forward and backwards to different parts of these regional production value chains, trade in components to enhance value addition by each individual country and the development of manufacturing capabilities. These RTAs must also take into consideration the fact that the member states are at different starting points, and different factors drive trade and human development in each of these countries. There should therefore be some room for heterogeneity in policy outlook in arriving at the same desired and ultimate development outcomes. This is especially important in the SADC region, as the benefits are clear for the ASEAN region.

This study also provides possible directions for future research. In this study, HDI was used as a representative variable for human development in order to research into how it relates to international trade. Having found that trade openness enhances human development in SADC and ASEAN, it may be useful for future research to look into the specific components of HDI, particularly life expectancy, education and wellbeing, to see how these individual components relate to international trade. It will likewise be useful for future research to apply other measures of human development such as the inequality adjusted HDI or the multi-dimensional poverty index, or examine other variables such as access to services and sustainability of economies, to see how the outcomes could vary and the different policy implications that could emerge.

REFERENCES

Abboushi, S. 2006. US-Canada lumber trade dispute – analysis and projection, *Competition Forum*, 4(2):449-455.

Abboushi, S. 2010. Trade Protectionism: Reasons and Outcomes, *Competitiveness Review: An International Business Journal incorporating Journal of Global Competitiveness*, 20(5):384-394. Available at: <https://www.researchgate.net/publication/235283803_Trade_protectionism_Reasons_and_outcomes> [Accessed on: 27 April 2020].

Acemoglu, D., Johnson, S. & Robinson, J.A. 2001. The Colonial Origins of Comparative Development: An Empirical Investigation, *American Economic Review*, 91(5): 1369-401. Available at: <https://economics.mit.edu/files/4123> [Accessed on 14 April 2020].

African Centre for Economic Transformation (ACET). 2014. *2014 African Transformation Report: Growth with Depth*. Accra: ACET

Alatas, S.H. 1977. *The Myth of the Lazy Native; a study of the image of the Malays, Filipinos and Javanese from the 16th to the 20th century and its function in the ideology of colonial capitalism*. London: Frank Cass & Co.

Amin, S. 1989. *La Faillitte du developpement en Afrique et dans le tiers-monde; une analyse politique.* Paris: L'Harmattan.

Amiti, M., Dai, M., Feenstra, R., & Romalis, J. 2017. *How Did China's WTO Entry Affect U.S. Prices? NBER Working Paper No. 23487*. Cambridge: National Bureau of Economic Research. Available at: <https://www.nber.org/papers/w23487.pdf> [Accessed on: 5 May 2020].

Amsden, A. 1989. *Asia's Next Giant; South Korea and late industrialization.* New York: Oxford University Press.

Amuedo-Dorantes, C., and Pozo, S. 2004. Workers' Remittances and the Real Exchange Rate: A Paradox of Gifts, *World Development*, 32(8):1407-1417.

Aregbeshola, R.A. 2014. Foreign Direct Investment and Institutional Adequacy: New Granger Causality Evidence from African Countries, *South African Journal of Economic and Management Sciences*, 17(5): 557-568.

Aregbeshola, R.A. 2017a. Import Substitution Industrialisation and Economic Growth – Evidence from the Group of BRICS Countries, *Future Business Journal*, 3(2): 138-158.

Aregbeshola, R.A. ed. 2017b. Principles of Global Business Management. South Africa: Juta Legal and Academic Publishers.

Aregbeshola, R.A. 2018. The Machination of Foreign Direct Investment Flow to Emerging Markets – a Focus on Africa, *African Journal of Economic and Management Studies*, 9(4): 430-448

Arellano, M. and Bond, S. 1991. Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations, *The Review of Economic Studies*, 58(2): 277-297.

Arellano, M. and Bover, O. 1995. Another look at the Instrumental Variable Estimation of Error-Component Models, *Journal of Econometrics,* 68(1): 29-51.

Arrighi, G. 1996. The rise of East Asia; world systematic and regional aspects, *International Journal of Sociology and Social Policy*, 16 (7/8): 6-44.

Aryeetey, E., Court, J. Nissanke, M. & Weder, B. 2003. *Africa and Asia in the Global Economy*. Tokyo: United Nations University Press. Available at: <https://collections.unu.edu/eserv/UNU:2437/ebrary9280810898.pdf> [Accessed on: 15 April 2020].

Association of Southeast Asian Nations (ASEAN). 2015. *ASEAN Economic Community Blueprint 2025*. Jakarta: ASEAN.

Association of Southeast Asian Nations (ASEAN). 2018. *ASEAN Key Figures 2018*. Jakarta: ASEAN. Available at: <https://www.aseanstats.org/wp-content/uploads/2018/12/ASEAN-Key-Figures-2018.pdf> [Accessed on: 6 May 2020].

Association of Southeast Asian Nations (ASEAN). 2019. *Chairman's Statement of the 35th ASEAN Summit*. Bangkok/Nonthaburi: ASEAN. Available at: <https://asean.org/storage/2019/11/Chairs-Statement-of-the-35th-ASEAN-Summit-FINAL.pdf> [Accessed on: 11 May 2020].

Association of Southeast Asian Nations (ASEAN). 2020a. ASEAN website. Jakarta: ASEAN. Available at: <https://asean.org/> [Accessed on: 10 May 2020].

Association of Southeast Asian Nations (ASEAN). 2020b. *ASEAN Intellectual Property Portal: What is ASPEC* [online]. Jakarta: ASEAN. Available at: <https://www.aseanip.org/Services/ASEAN-Patent-Examination-Co-operation-ASPEC/What-is-ASPEC> [Accessed 8 April 2020].

Baker P. 2017. *Trump Abandons Trans-Pacific Partnership, Obama's Signature Trade Deal* [online]. New York: The New York Times. Available at: <www.nytimes.com/2017/01/23/us/politics/tpp-trump-trade-nafta.html> [Accessed on: 6 October 2017].

Barro, J. 1991. Economic growth in a cross section of countries, *The Quarterly Journal of Economics*, 106(2): 407-443.

Beck, N. and Katz, J.N. 1995. What to do (and not to do) with Time-Series Cross-Section Data, *The American Political Science Review*, 89(3): 634-647.

Becker, C. 1988. The Impact of Sanctions on South Africa and Its Periphery, *African Studies Review*, 31(2): 61-88.

Berendsen, B., Dietz, T., Nordholt, H.S., & van der Veen, R. eds. 2013. *Asian Tigers, African Lions; Comparing the Development Performance of Southeast Asia and Africa*. Leiden: Brill. Available at: <https://openaccess.leidenuniv.nl/bitstream/handle/1887/39100/ASC-075287668-3354-01.pdf?sequence=1> [Accessed on: 15 April 2020].

Bernard, A.B., Jensen, J.B. & Schott, P.K. 2002. *Survival of the Best Fit: Competition from Low Wage Countries and the (Uneven) Growth of US Manufacturing Plants. Working Paper 9170*. Cambridge: National Bureau of Economic Research. Available at: <https://www.nber.org/papers/w9170.pdf> [Accessed on: 5 May 2020].

Bevan, D.L., Collier, P., & Gunning, J.W. 1999. *The Political Economy of Poverty, Equity, and Growth; Nigeria and Indonesia*. New York: Oxford University Press.

Binuyo, A.O. and Aregbeshola, R.A. 2014. The Impact of Information and Communication Technology (ICT) on Commercial Bank Performance: Evidence from South Africa, *Problems and Perspectives in Management*, 12(3): 59-68.

Black's Law Dictionary. 1990. *Black's Law Dictionary.* 6th ed. 1990. West Publishing.

Bloom, N., Draca, M., and Reenen, J.V. 2016. Trade Induced Technical Change? The Impact of Chinese Imports on Innovation, IT and Productivity, *The Review of Economic Studies*, 83(1): 87-117.

Bloomfield, A.I. 1975. 'Adam Smith and the Theory of International Trade.' In: Kinner, A.S. and Wilson, T. eds. *Essays on Adam Smith*. Oxford: Clarendon Press. 455-481.

Boeke, J.H. 1953. *Economics and Economic Policy of Dual Societies as Exemplified by Indonesia*. New York: International Secretariat, Institute of Pacific Relations.

Braadbaart, O. 1996. 'Corruption in Indonesian Public Tendering'. In: Bakker, H.E. and Schulte, Nordholt, N.G.S., eds. *Corruption and Legitimacy*. Amsterdam: Netherlands Universities Institute for Coordination of Research in Social Sciences (SISWO). 95-117.

Brautigam, D. 1995. 'The state as agent: Industrial Development in Taiwan, 1952-1972'. In: Stein, H. ed. *Asian Industrialization and Africa; Studies in Policy Alternatives to Structural Adjustment*. New York: St Martin's Press, Inc. 145-181.

Brautigam, D. 2003. 'Local entrepreneurship in Southeast Asia and Sub-Saharan Africa: networks and linkages to the global economy'. In: Aryeetey, E., Court, J., Nissanke, M., & Weber, B. eds. *Africa and Asia in the Global Economy*. Tokyo: United Nations University Press. 106-127. Available in: <https://collections.unu.edu/eserv/UNU:2437/ebrary9280810898.pdf> [Accessed on: 15 April 2020].

Breisinger, C. and Diao, X. 2008. *Economic transformation in theory and practice: what are the messages for Africa? ReSAKSS Working Paper 10*. Washington, DC: Regional Strategic Analysis and Knowledge Support System, International Food Policy Research Institute. Available at: <https://www.resakss.org/sites/default/files/pdfs/economic-transformation-in-theory-and-practice-wha-39396.pdf> [Accessed on: 15 April 2020].

Buchanan, J.M. and Yoon, Y.J. 2002. Globalization as Framed by the Two Logics of Trade, *The Independent Review*, 6(3): 399-405.

Cervantes-Godoy, D. and Dewbre, J. 2010. *Economic importance of agriculture for poverty reduction; OECD Food, Agriculture and Fisheries Working Paper 23*. Paris: OECD Publishing. Available at: <https://www.oecd.org/brazil/44804637.pdf> [Accessed on: 15 April 2020].

Chabal, P. 2009. *Africa; the politics of suffering and smiling*. London; Zed Books.

Chabal, P. and Daloz, J.P. 1999. *Africa Works; Disorder as Political Instrument*, Oxford: James Currey.

Chang, H. 2003. 'Trade, industry and technology policies in Northeast Asia'. In: Nissanke, M. and Aryeetey, E. eds. *Comparative Development Experiences of Sub-Saharan Africa and East Asia*. Aldershot: Ashgate. 243-271.

Chege, M. 1993. *Sub-Saharan Africa: underdevelopment's last stand*. Madison: Global Studies Research Program, University of Wisconsin-Madison.

Chhibber, A. and Leechor, C. 1995. From adjustment to growth in Sub-Saharan Africa: the lessons of East Asian experience applied to Ghana, *Journal of African Economies*, 4(1): 83-114.

Collier, P. 2007. *The Bottom Billion; Why the Poorest Countries are Failing and What Can Be Done About It.* New York: Oxford University Press. Available at: <https://www.sfu.ca/content/sfu/dean-gradstudies/events/dreamcolloquium/SpringColloquium/Readings/Readings/_jcr_content/main_content/download_47/file.res/Paul%20Collier> [Accessed: 15 April 2020].

Coughlin, C., Chrystal, K.A., & Wood, G. 1988. Protectionist Trade Policies; A Survey of Theory, Evidence and Rationale. Missouri: Federal Reserve Bank of St. Louis. Available at: <https://files.stlouisfed.org/files/htdocs/publications/review/88/01/Protectionist_Jan_Feb1988.pdf> [Accessed on 02 May 2020].

Davidson, B. 1992. *The Black Man's Burden; Africa and the curse of the nation-state.* New York: Three Rivers Press.

De Loecker, J., Goldberg, P.K., Khandelwal, A.K. & Pavcnik, N. 2016. Prices, Markups, and Trade Reform*, Econometrica,* 84(2): 445-510. Available at: <https://www.dartmouth.edu/~npavcnik/docs/ecta11042.pdf> [Accessed on: 9 May 2020].

Department of Statistics Brunei Darussalam. 2017. Report of Summary Findings: Labour Force Survey 2017. Brunei Darussalam: Department of Statistics, Department of Economic Planning and Development, Ministry of Finance and Economy, Brunei Darussalam. Available at: <http://www.deps.gov.bn/DEPD%20Documents%20Library/DOS/Labour%20force%20survey_KTK/2017/Sum_FindingsLFS2017.pdf> [Accessed on: 2 May 2020].

Djankov, S., Montalvo, J.G., & Reynal-Querol, M. 2007. *The curse of aid* [online]. Washington, DC: World Bank. Available at: <http://documents.worldbank.org/curated/en/206371468155962442/pdf/452540WP0Box331urse1of1aid01PUBLIC1.pdf> [Accessed on: 15 April 2020].

Donge, J.K., Henley, D., & Lewis, P. 2012. Tracking Development in South-East Asia and sub-Saharan Africa: The Primacy of Policy, *Development Policy Review*, 30(1): s5-s24.

Dunne, T., Jensen, J.B., & Roberts, M.M. eds. 2009. *Producer Dynamics: New Evidence from Micro Data*. Illinois: University of Chicago.

Easterly, W. and Levine, R. 1995. *Africa's growth tragedy; a retrospective 1960-89; Policy Research Working Paper 1503* [online]. Washington, DC: World Bank. Available at: <http://documents.worldbank.org/curated/en/732501468741681923/pdf/multi0page.pdf> [Accessed on: 15 April 2020].

Easterly, W. and Levine, R. 1997. Africa's growth tragedy: policies and ethnic divisions, *Quarterly Journal of Economics*, 112(4): 1203-50.

Edwards, C. 1995. 'East Asia and industrial policy in Malaysia: lessons for Africa?', In: Howard Stein, H. ed. *Asian Industrialization and Africa; studies in policy alternatives to structural adjustment.* Basingstoke: Macmillan. 239-56.

Elbadawi, I.A., Ndulu, B., & Ndung'u, N.S. 2003. 'Macroeconomic Performance in Sub-Saharan Africa in a Comparative Setting: An Institutional Approach'. In: Nissanke, M. and Aryeetey, E. eds. *Comparative Development Experiences of Sub-Saharan Africa and East Asia; An Institutional Approach*. London: Routledge. 73-112.

Evans, P. 1999. 'Transferable lessons? Re-examining the Institutional Prerequisites of East Asian Economic Policies'. In: Akyuz, Y. ed. East Asian Development; New Perspectives. London: Frank Cass. 66-86.

Fajgelbaum, P.D. and Khandelwal, A.K. 2014. Measuring the Unequal Gains from Trade. NBER Working Paper 20331. Massachusetts: National Bureau of Economic Research. Available at: <https://www.nber.org/papers/w20331.pdf> [Accessed on: 9 May 2020].

Fan, S. ed. 2008. *Public Expenditures, Growth, and Poverty; lessons from developing countries*. Baltimore, MD: Johns Hopkins University Press in cooperation with the International Food Policy Research Institute. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.640.6202&rep=rep1&type=pdf> [Accessed on: 16 April 2020].

Frank, A.G. 1978. *Dependent Accumulation and Underdevelopment*. London: Macmillan.

Frank, A. G. 1998. *ReOrient; global economy in the Asian age*. Berkeley: University of California Press.

Frankel, J. 2007. 'Globalization of the Economy'. In: Art, R.J. and Jervis, R. eds. *International Politics Enduring Concepts and Contemporary Issues.* USA: Pearson Education, Inc.: 309-324

Freedom House. 2019. *Freedom in the World* [online]. Washington, DC: Freedom House. Available at: <https://freedomhouse.org/report/freedom-world> [Accessed on 12 November 2019].

Fuady, A. H. 2012. Elites and economic policies in Indonesia and Nigeria, 1966-1998. PhD thesis. University of Amsterdam, Amsterdam. Available at: <https://pure.uva.nl/ws/files/1733976/104430_thesis.pdf> [Accessed on: 15 April 2020].

Gokcekus, O. and Tower, E. 1998. Does trade liberalization benefit old and young alike?, *Review of International Economics*, 6(1): 50-58.

Gourou, P. 1947. *Les Pays tropicaux; principes d'une geographie humaine et economique*. Paris: Presses Universitaires de France.

Hanatani, A. 2008. 'Asian experiences of economic development and their implications for Africa'. In: Institute for International Cooperation/Japan International Cooperation Agency. *Role of government in promoting sustained and accelerated growth in Africa and lessons from Asian experiences; JICA/JBIC international workshop report 'Asian Experiences of Economic Development and Their Policy Implications for Africa' February 6, 2008, Tokyo*. Tokyo: Institute for International Cooperation/Japan International Cooperation Agency. 3-6. Available at: <https://openjicareport.jica.go.jp/pdf/11882214.pdf> [Accessed on: 16 April 2020].

Hansen, L. P. 1982. Large Sample Properties of Generalized Method of Moments Estimators, *Econometrica*, 50(4):1029-1054.

Harrold, P., Jayawickrama, M. & Bhattasali, D. 1996. *Practical lessons for Africa from East Asia in industrial and trade policies; World Bank Discussion Paper 310* [online]. Washington, DC: World Bank. Available at: <http://documents.worldbank.org/curated/en/316381468759321268/pdf/multi-page.pdf> [Accessed on: 16 April 2020].

Hays, J. 2008. *Singaporean Economy in the 2000s and 2010s* [online]. n.p.: Facts and Details. Available at: <http://factsanddetails.com/southeast-asia/Singapore/sub5_7c/entry-3783.html> [Accessed on: 9 May 2020].

Health Poverty Action and 12 other NGOs. 2014. *Honest Accounts? The True Story of Africa's Billion Dollars Loses*. Health Poverty Action. curtisresearch.org. Available at: <http://curtisresearch.org/wp-content/uploads/Honest-Accounts-report-v4-web.pdf> [Accessed on: 16 April 2020].

Henley, D. 2015. *Asia-Pacific Development Divergence – A Question of Intent*. London: Zed Books.

Hicks, A. 1994. 'Introduction to Pooling'. In: T. Janoski and A. Hicks (eds.), *The Comparative Political Economy of the Welfare State*. Cambridge: Cambridge University Press. 169-188.

Hufbauer, G., Berliner, C. & Elliot, K. 1986. Trade Protection in the United States: 31 Case Studies. Washington DC: Peterson Institute for International Economics.

International Labour Organization (ILO). 2020. Statistics on unemployment and supplementary measures of labour underutilization [online]. Geneva: International Labour Organization. Available at: <https://ilostat.ilo.org/topics/unemployment-and-labour-underutilization/> [Accessed on: 11 May 2020].

International Monetary Fund (IMF). 2002. *Malawi – The Food Crises, the Strategic Grain Reserve, and the IMF* [online]. Washington, D.C.: International Monetary Fund. Available at: <https://www.imf.org/external/np/exr/facts/malawi.htm> [Accessed on: 9 May 2020].

International Monetary Fund (IMF). 2011. *South Africa 2011 Article IV Consultation: IMF Country Report No. 11/258*. Washington, DC: International Monetary Fund. Available at: <https://web.archive.org/web/20140430092020/http://www.imf.org/external/pubs/ft/scr/2011/cr11258.pdf> [Accessed on: 6 May 2020].

International Monetary Fund (IMF). 2020. *Debt Relief under the Heavily Indebted Poor Countries (HIPC) Initiative* [online]. Washington, D.C.: International Monetary Fund. Available at: <https://www.imf.org/en/About/Factsheets/Sheets/2016/08/01/16/11/Debt-Relief-Under-the-Heavily-Indebted-Poor-Countries-Initiative> [Accessed on 16 December 2020].

Irwin, D.A. 1996. *Against the Tide: An Intellectual History of Free Trade*. Princeton: Princeton University Press.

Johnson, S., Ostry, J.D. & Subramanian, A. 2007. *The prospects for sustained growth in Africa: benchmarking the constraints, IMF Working Paper 07/52*. Washington, DC: International Monetary Fund.

Kaempfer, W. and Willett, T. 1987. Why an import surcharge wouldn't help America's trade deficit, *The World Economy*, 10(1): 27-38.

Kang, J.W. and Ramizo, D. 2017. *Impact of Sanitary and Phytosanitary Measures and Technical Barriers on International Trade*. Manila: Asian Development Bank. Available at: <https://mpra.ub.uni-muenchen.de/82352/1/MPRA_paper_82352.pdf> [Accessed on: 27 April 2020].

Khan, M.H. 2007. *Governance, economic growth and development since the 1960s', DESA Working Paper 54*. New York: United Nations Department of Economic and Social Affairs. Available at: <https://www.un.org/esa/desa/papers/2007/wp54_2007.pdf> [Accessed on: 16 April 2020].

Khan, M.H. and Jomo, K.S. eds. 2000. *Rents, Rent-seeking and Economic Development; theory and evidence i*n Asia. Cambridge: Cambridge University Press.

Kilama, B. 2013. The Diverging South; Comparing the Cashew Sectors of Tanzania and Vietnam. PhD thesis. Leiden University: Leiden. Available at: <https://openaccess.leidenuniv.nl/bitstream/handle/1887/20600/fulltext.pdf?sequence=1> [Accessed on: 16 April 2020].

Kinuthia, B.K. 2013. Reversed fortunes in the south; a comparison of the role of FDI in industrial development in Kenya and Malaysia. PhD thesis. Leiden University: Leiden. Available at: <https://openaccess.leidenuniv.nl/handle/1887/20601> [Accessed on: 19 April 2020].

Kinzius, L., Sandkamp, A. & Yalcin, E. 2019. Global trade protection and the role of non-tariff barriers [online]. London: VOX CEPR Policy Portal. Available at: <https://voxeu.org/article/global-trade-protection-and-role-non-tariff-barriers> [Accessed on: 5 May 2020].

Kmenta, J. 1986. *Elements of Econometrics.* 2nd ed. New York: MacMillan.

Knetsch, J.L. 1989. The Endowment Effect and Evidence of Non-Reversible Indifference Curves, *American Economic Review*, 79(5):1277-1284.

Kochan, T.A. and Katz, H.C. 1988. Collective Bargaining and Industrial Relations: From Theory to Policy and Practice. Illinois: Irwin.

Krueger, A.O. 1974. The Political Economy of the Rent Seeking Society, *American Economic Review*, 64(3): 291-303. Available at: < https://assets.aeaweb.org/asset-server/files/9452.pdf> [Accessed on: 2 May 2020].

Krugman, P.R. 1997. *Pop Internationalism*. Cambridge: MIT Press.

Krugman, P.R. and Obstfeld, M. 2009. *International Economics: Theory and Policy*. 8th ed. Boston: Pearson Addison-Wesley.

Kurlantzick, J. 2012. ASEAN's Future and Asian Integration. New York: Council on Foreign Relations. Available at: <https://www.cfr.org/sites/default/files/pdf/2012/10/IIGG_WorkingPaper10_Kurlantzick.pdf>. [Accessed on: 11 May 2020].

LaHaye, L. 2002. *Mercantilism* [online]. Indiana: Library of Economics and Liberty / Liberty Fund, Inc. Available at: <https://www.econlib.org/library/Enc1/Mercantilism.html> [Accessed on: 24 April 2020].

Lamb, R.L. 2006. Rent seeking in US-Mexican Avocado Trade, *Cato Journal*, 26(1): 159-177. Available at: <https://www.cato.org/sites/cato.org/files/serials/files/cato-journal/2006/1/cj26n1-9.pdf> [Accessed on: 2 May 2020].

Langran, I.V. 2001. Cambodia in 2000 New Hopes are Challenged, *Asian Survey* Vol. 41(1): 156-163.

Laverty, A. 2007. Impact of Economic and Political Sanctions on Apartheid [online]. South Africa: The African File. Available at: <https://theafricanfile.com/politicshistory/impact-of-economic-and-political-sanctions-on-apartheid/> [Accessed on: 6 May 2020].

Lawrence, P. and Thirtle, C. eds. 2001. *Africa and Asia in Comparative Economic Perspective*. Basingstoke: Palgrave MacMillan.

Lawrence, R.Z. and Litan, R.E. 1987. *Why Protectionism Doesn't Pay* [online]. Massachusetts: Harvard Business Review. Available at: <https://hbr.org/1987/05/why-protectionism-doesnt-pay> [Accessed on: 2 May 2020].

Lee, E. and Yi, K.M. 2018. *Global Value Chains and Inequality with Endogenous Labour Supply. NBER Working Paper No. 24884*. Cambridge: National Bureau of Economic Research. Available at: <https://www.nber.org/papers/w24884.pdf> [Accessed on: 5 May 2020].

Lindauer, D. and Roemer, M. eds. 1994. *Asia and Africa: Legacies and Opportunities in Development*. California: Institute for Contemporary Studies Press.

Losch, B. 2012. *Agriculture: The key to the employment challenge, Development Strategies Perspective 19, October 2012*. Paris: CIRAD Agricultural Research for Development. Available at: <https://agritrop.cirad.fr/589201/1/Perspective_19_Losch_ENG.pdf> [Accessed on: 16 April 2020].

Love, I., & Zicchino, L. 2006. Financial Development and Dynamic Investment Behaviour: Evidence from Panel Vector Autoregression, *The Quarterly Review of Economics and Finance*, 46(2):190-210. Available at: <file:///C:/Users/Pretoriape/Downloads/download.pdf> [Accessed on 5 May 2020].

Love, P. and Lattimore, R. 2009. *International Trade: Free, Fair and Open?* Paris: OECD. Available at: <https://www.oecd-ilibrary.org/docserver/9789264060265-en.pdf?expires=1588418522&id=id&accname=guest&checksum=CEF9EFF14EB79F34F7209B9252F1D8D3> [Accessed on: 2 May 2020].

Lowe J. 2017. *Why did Brexit Happen? Hatred of Immigrants Drove British Vote, Study Says* [online]. n.p.: Newsweek. Available at: <www.newsweek.com/brexit-eu-referendum-vote-prejudice-immigration-628353> [Accessed on 16 October 2017].

Luttrell, C.B. 1978. Imports and jobs – the observed and the unobserved. Review – Federal Reserve Bank of St Louis, January, pp. 2-10. Available at: <https://files.stlouisfed.org/files/htdocs/publications/review/78/06/Imports_Jun1978.pdf> [Accessed on: 5 May 2020].

MacDonald, G.M. and Markusen, J.R. 1985. A Rehabilitation of Absolute Advantage, *Journal of Political Economy*, 93(2): 277-297.

Macintyre, A. 2001. 'Investment, property rights, and corruption in Indonesia'. In: Campos, J.E. ed. *Corruption; the boom and bust of East Asia*. Quezon City: Ateneo de Manila University Press. 25-44.

Madyo, M.R. 2008. The Importance of Regional Economic Integration in Africa. MA Thesis. University of South Africa, Pretoria.

Mamdani, M. 1996. *Citizen and Subject; contemporary Africa and the legacy of late colonialism*. London: James Currey.

Mankiw, N.G. 2009. *Macroeconomics*. New York: Worth Publishers.

Mankiw, N.G. 2015. Economists Actually Agree on This: The Wisdom of Free Trade [online]. New York: The New York Times. Available at: <https://www.nytimes.com/2015/04/26/upshot/economists-actually-agree-on-this-point-the-wisdom-of-free-trade.html> [Accessed on: 5 May 2020].

Markusen, J.R., Melvin, J.R., Maskus, K.E. & Kaempfer, W. 1995. International Trade: Theory and Evidence. New York: McGraw-Hill.

Martin, G. 2016. *UK defence companies seeking partnerships in South Africa* [online]. Johannesburg: defenceweb. Available at: <https://www.defenceweb.co.za/industry/industry-industry/uk-defence-companies-seeking-partnerships-in-south-africa/> [Accessed on: 30 April 2020].

Martin, G. 2020. *Niger's National Guard to receive an additional Delair UAV* [online]. Johannesburg: defenceweb. Available at: <https://www.defenceweb.co.za/aerospace/unmanned-aerial-vehicles/nigers-national-guard-to-receive-an-additional-delair-uav/> [Accessed on: 01 May 2020].

Mattes, J. 2015. Looking into the Innovation Process:' How International is Innovation in Multinational Companies?'. In: Lundan, S. ed. *Transnational Corporations and Transnational Governance: The Cost of Crossing Borders in the Global Economy.* London: Palgrave Macmillan. 145-176.

Mauldin, J. 2016. *3 Reasons Brits Voted for Brexit* [online]. n.p.: Forbes. Available at: <www.forbes.com/sites/johnmauldin/2016/07/05/3-reasons-brits-voted-for-brexit> [Accessed on: 3 October 2017].

McKinsey Global Institute. 2010. *Lions on the Move: The progress and potential of African economies*. McKinsey Global Institute. Available at: <https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Middle%20East%20and%20Africa/Lions%20on%20the%20move/MGI_Lions_on_the_move_african_economies_full_report.ashx> [Accessed on: 16 April 2020].

McLeod, R. H. 2000. Soeharto's Indonesia: A Better Class of Corruption, *Agenda; a journal of Policy Analysis and Reform*, 7(2): 99-112. Available at: <http://press-files.anu.edu.au/downloads/press/p92381/pdf/article01.pdf> [Accessed on: 16 April 2020].

Meredith, M. 2005. *The State of Africa; a history of the Continent since Independence*. London: Simon and Schuster.

Mion, G. and Zhu, L. 2013. Import competition from and offshoring to China: A curse or blessing for firms?, *Journal of International Economics*, 89(1): 202-215.

Moghalu, K.C. 2014. *Emerging Africa: How the Global Economy's 'Last Frontier' Can Prosper and Matter*. London: Penguin Books.

Morrissey, O. 2001. 'Lessons for Africa from East Asian Economic Policy'. In: Lawrence, P. and Thirtle, C. eds. *Africa and Asia in Comparative Economic Perspective*. Basingstoke: Palgrave. 34-48.

Moyo, D. 2009. 'Why Aid Is Hurting Africa', *Wall Street Journal*, 21 March 2009. Available at: <https://www.wsj.com/articles/SB123758895999200083> [Accessed on: 16 April 2020].

Myint, H. 1977. Adam Smith's Theory of International Trade in the Perspective of Economic Development, *Economica*, 44(175): 231-248.

Ndulu, B., O'Connell, S.A., Bates, R., Collier, P., & Soludo, C.C. 2008. eds. *The Political Economy of Economic Growth in Africa, 1960-2000, 2 vols*. Cambridge: Cambridge University Press

Neequaye, N.A. 2015. Three Essays in Trade and International Development. PhD Economics Dissertation. Utah State University, Utah. Available at: <https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=5479&context=etd> [Accessed on: 18 April 2020].

Nickell, S. 1981. Biases in Dynamic Models with Fixed Effects, *Econometrica*, Vol. 49(6): pp. 1417-1426.

Nieminen, R., Puccio, L. & André, M.C.2017. *The Added Value of International Trade and Impact of Trade Barriers* [online]. Brussels: European Parliamentary Research Service Blog. Available at: <https://epthinktank.eu/2017/10/27/the-added-value-of-international-trade-and-impact-of-trade-barriers/> [Accessed on: 5 May 2020].

Nissanke, M. and Aryeetey, E. eds. 2003a. *Comparative Development Experiences of Sub-Saharan Africa and East Asia; an institutional approach*. Aldershot: Ashgate.

Nissanke, M. and Aryeetey, E. 2003b. 'Comparative institutional analysis: Sub-Saharan Africa and East Asia'. In: Nissanke, M. and Aryeetey, E. eds. *Comparative Development Experiences of Sub-Saharan Africa and East Asia; an institutional approach*. Aldershot: Ashgate. 30-70.

Nuclear Threat Initiative (NTI). 2020. *Association of Southeast Asian Nations (ASEAN)* [online]. Washington, DC: NTI. Available at: <https://www.nti.org/learn/treaties-and-regimes/association-southeast-asian-nations-asean/> [Accessed on 11 May 2020].

Okeke, D.C. 2018. Neo-mercantilism as development ideology: A conceptual approach to rethink the space economy in Africa, *African Studies*, 77(1): 23-52.

Organization for Economic Cooperation and Development (OECD). 1985. Costs and Benefits of Protection. Paris: OECD.

Organisation for Economic Co-operation and Development (OECD). 2011. *African Economic Outlook 2011; Special Theme: Africa and its Emerging Partners*. Paris: OECD Publishing. Available at: <https://www.undp.org/content/dam/undp/library/corporate/Reports/UNDP-Africa-2011-Economic-Outlook.pdf> [Accessed on: 16 April 2020].

Ortiz-Ospina, E. 2018. *Does trade case growth?* [online]. Oxford: Our World in Data. Available at: <https://ourworldindata.org/trade-and-econ-growth> [Accessed on: 8 May 2020].

Ostry, J. 2019. *Why protectionism spells trouble for global economic growth* [online]. Geneva: World Economic Forum. Available at: <https://www.weforum.org/agenda/2019/03/why-tariffs-spell-trouble-for-economic-growth/> [Accessed on 1 May 2020].

Parks, R. W. 1967. Efficient Estimation of a System of Regression Equations when Disturbances are both Serially and Contemporaneously Correlated. *Journal of the American Statistical Association,* 62(318): 500-509.

Parliament of Australia. 1996. *Completed Inquiry: Australia's Relations with Southern Africa* [online]. Canberra: Parliament of Australia. Available at: <https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Completed_Inquiries/jfadt/africa/reptindx> [Accessed on: 6 May 2020].

Pesaran, M. H. 2004. *General Diagnostic Tests for Cross Section Dependence in Panels, Cambridge Working Papers in Economics 0435*. Cambridge: University of Cambridge.

Pesaran, H. M. 2007. A Simple Panel Unit Root Test in the Presence of Cross-Section Dependence, *Journal of Applied Econometrics*, 22(2): 265-312.

Petrella, F. 1968. Adam Smith's Rejection of Hume's Price-Specie-Flow Mechanism: A Minor Mystery Resolved, *Southern Economic Journal*, 34(3): 365-374.

Pincus, J. 1977. Pressure Groups and Politics in Antebellum Tariffs. New York: Columbia University Press.

Prasch, R.E. 1995. Reassessing Comparative Advantage: The Impact of Capital Flows on the Argument for Laissez-Faire, *Journal of Economic Issues*, 29 (2): 427-433.

Radelet, S. 2010. *Emerging Africa; how 17 countries are leading the way*, Washington, DC: Center for Global Development. Available at: <https://www.cgdev.org/sites/default/files/1424419_file_EmergingAfrica_FINAL.pdf> [Accessed on: 16 April 2020].

Ricardo, D. 2004 [1817]. Sraffa, P. ed. *On the Principles of Political Economy and Taxation. The Works and Correspondence of David Ricardo: Vol 1.* Indianapolis: Liberty Fund. Available at: <http://ricardo.ecn.wfu.edu/~cottrell/ecn265/Principles.pdf> [Accessed on: 26 April 2020].

Robinson, J. 1979. 'Reflections on the Theory of International Trade'. In: Robinson, J. ed. *Collected Economic Papers, Volume V*. Oxford, Basil Blackwell. 130-145.

Robison, R. and Hadiz, V.R. 2004. *Reorganising Power in Indonesia; The Politics of Oligarchy in an Age of Markets*. London: Routledge.

Rodrik, D., Subramanian, A. & Trebbi, F. 2004. Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development, *Journal of Economic Growth*, 9(2): 131-165.

Roemer, M. 1994. 'Industrial Strategies: Outward Bound'. In: Lindauer, D. and Roemer, M. eds. *Asia and Africa: Legacies and Opportunities in Development*. San Francisco, CA: Institute for Contemporary Studies Press. 233-68.

Rogoff, K. 2017. *Protectionism won't protect jobs. Here's what will* [online]. Geneva: World Economic Forum. Available at: <https://www.weforum.org/agenda/2017/08/protectionism-wont-protect-jobs-heres-what-will> [Accessed on: 1 May 2020].

Romer, D.H. and Frankel, J.A. 1999. Does Trade Cause Growth?, *American Economic Review*, 89(3): 379-399. Available at: <https://pubs.aeaweb.org/doi/pdfplus/10.1257/aer.89.3.379> [Accessed on 9 May 2020].

Rostow, W. W. 1960. *The Stages of Economic Growth: a Non-communist Manifesto.* Cambridge: Cambridge University Press. Available at: <https://www.cia.gov/library/readingroom/docs/CIA-RDP78-03062A001100030001-6.pdf> [Accessed on: 16 April 2020].

Ruiz-Napoles, P. 2006. *Protectionism, Free Trade and Preferential Trade: The Mexican Experience. Research Paper of the Centro de Estudios Globales y de Alternativas para el Desarrollo de Mexico*. Mexico City: Universidad Nacional Autonoma de Mexico. Available at: <http://www.economia.unam.mx/cegademex/DOCS/pablo_ruiz_napoles1.pdf> Accessed on: [26 April 2020].

Sala-i-Martin, X. and Pinkovskiy, M. 2010. *African poverty is falling…much faster than you think!' NBER Working Paper 15775*. Cambridge, MA: National Bureau of Economic Research. Available at: <https://www.nber.org/papers/w15775.pdf> [Accessed on: 16 April 2020].

Salidjanova, N., Koch-Weser, I., & Klanderman, J. 2015. *China's Economic Ties with ASEAN: A Country-by-Country Analysis*. Washington DC: US-China Economic and Security Review Commission. Available at: <https://www.uscc.gov/sites/default/files/Research/China's%20Economic%20Ties%20with%20ASEAN.pdf> [Accessed on: 6 May 2020].

Schnietz, K. 1971. 'Democrats' 1916 Tariff Commission: Responding to Dumping Fears and Illustrating the Consumer Costs of Protectionism, *Business History Review*, 72(1):1-45.

Schumacher, R. 2012. *Free Trade and Absolute and Comparative Advantage*. Potsdam: Universitat Potsdam. Available at: <https://publishup.uni-potsdam.de/opus4-ubp/frontdoor/deliver/index/docId/6086/file/wtthesis16.pdf> [Accessed on 25 April 2020].

Scott, J.C. 1972. Patron-Client Politics and Political Change in Southeast Asia, *American Political Science Review*, 66(1): 91-113.

Sekyere, E.O. 2017. Prerequisites for Integration of on the African Continent: A P2P Perspective. Seminar on African Union Vision 2063, 14 November 2017. Cape Town: Human Sciences Research Council.

Sekyere, E.O. 2019. Africa's demographic dividend: fact or farce?, *AfricaGrowth Agenda*, 16(1): 10-12.

Setboonsarng, S. 1998. *ASEAN Economic Co-Operation Adjusting to the Crisis* [online]. Jakarta: ASEAN. Available at: <https://asean.org/asean-economic-co-operation-adjusting-to-the-crisis-by-suthad-setboonsarng/> [Accessed on: 6 May 2020].

Shaw, M. 2000. 'Historical Sociology and Global Transformation'. In: Palan, R. ed. *Global Political Economy: Contemporary Theories*. London: Routledge. 229-241.

Smith, A. 1981 [1776]. R.H., Skinner, A.S. & Todd, W.B. eds. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Campbell, Indianapolis: LibertyClassics. Available at: <http://files.libertyfund.org/files/220/0141-02_Bk.pdf> [Accessed on: 26 April 2020].

Soludo, C.C. 2003. 'Export-Oriented Industrialisation and Foreign Direct Investment in Africa'. In: Aryeetey, E., Court, J., Nissanke, M., & Weder, B. eds. *Asia and Africa in the Global Economy*. Tokyo: United Nations University Press. 246-281. Available at: <https://collections.unu.edu/eserv/UNU:2437/ebrary9280810898.pdf> [Accessed on: 18 April 2020].

Solow, R.M. 1956. A Contribution to the Theory of Economic Growth, *The Quarterly Journal of Economics*, 70(1): 65-94.

Southern African Customs Union (SACU). 2020. *SACU Since 1910* [online]. Windhoek: SACU. Available at: https://www.sacu.int/ [Accessed on: 10 May 2020].

Southern African Development Community (SADC). 2012a. *Towards a Common Future: Employment and Labour* [online]. Gaborone: SADC. Available at: <https://www.sadc.int/themes/social-human-development/employment-labour/> [Accessed on: 8 April 2020].

Southern African Development Community (SADC). 2012b. *Towards a Common Future: Social & Human Development* [online]. Gaborone: SADC. Available at: <https://www.sadc.int/themes/social-human-development/> [Accessed on: 6 May 2020].

Southern African Development Community (SADC). 2012c. *Towards a Common Future: Member States* [online]. Gaborone: SADC. Available at: <https://www.sadc.int/member-states> [Accessed on: 10 May 2020].

Southern African Development Community (SADC). 2012d. *Towards a Common Future: Finance, Investment and Customs* [online]. Gaborone: SADC. Available at: <https://www.sadc.int/sadc-secretariat/directorates/office-deputy-executive-secretary-regional-integration/finance-investment-and-customs/> [Accessed on: 10 May 2020].

Southern African Development Community (SADC). 2017. *Summary of the SADC Revised Regional Indicative Strategic Development Plan 2015-2020*. Gaborone: SADC. Available at:

<https://www.sadc.int/files/5415/2109/8240/SADC_Revised_RISDP_2015-2020.pdf> [Accessed on: 10 May 2020].

Southern African Development Community (SADC). 2019. *Communique of the 39th SADC Summit of Heads of State and Government*. Dar Es Salaam: SADC. Available at: <https://www.sadc.int/files/1915/6614/8772/Communique_of_the_39th_SADC_Summit-English.pdf> [Accessed on 27 April 2020].

Statistics South Africa. 2019. *Statistical Release P0318, General Household Survey 2018* [online]. Pretoria: Statistics South Africa. Available at: <http://www.statssa.gov.za/publications/P0318/P03182018.pdf> [Accessed on: 8 April 2020].

Stein, H. ed. 1995a. *Asian Industrialization and Africa; Studies in Policy Alternatives to Structural Adjustment*. London: Palgrave Macmillan.

Stein, H. 1995b. 'The World Bank, Neo-Classical Economics and the Application of Asian Industrial Policy to Africa'. In: Stein, H. ed. *Asian Industrialization and Africa; Studies in Policy Alternatives to Structural Adjustment*. London: Palgrave Macmillan. 31-52.

Stolper, W.F. and Samuelson, P.A. 1941. Protection and Real Wages, *The Review of Economic Studies*, 9(1): 58-73.

Suman, S. n.d. *Capital Formation in an Economy: Meaning, Significance and Process* [online]. n.p.: Economics Discussion. Available at: <http://www.economicsdiscussion.net/capital-formation/capital-formation-in-an-economy-meaning-significance-and-process/12981. [Accessed on: 22 April 2020].

The Consumer Cost of US Trade Restraints. 1985. *Federal Reserve Bank of New York Quarterly Review*, Summer 1985. 1-12. Available at: <https://www.newyorkfed.org/medialibrary/media/research/quarterly_review/1985v10/v10n2article1.pdf> [Accessed on: 2 May 2020]

The Economist. 2009. *So Much Gained, So Much to Lose* [online]. London: The Economist. Available at: <https://www.economist.com/leaders/2009/11/05/so-much-gained-so-much-to-lose> [Accessed on: 26 April 2020].

The Editors of Encyclopaedia Britannica. 2020. *Free Trade* [online]. n.p.: Encyclopaedia Britannica, Inc. Available at: <https://www.britannica.com/topic/free-trade> [Accessed on: 26 April 2020].

Thompson, N. and Thompson, S. 2000. *The Baobab and the Mango Tree: Lessons About Development – African and Asian Contrasts.* London: Zed Books.

Tin, M.M.T. 2001. Myanmar (Burma) in 2000 More of the Same?, *Asian Survey* 41(1): 148-155.

Tonby, O., Ng, J. & Mancini, M. 2014. *Understanding ASEAN: The manufacturing opportunity*. Singapore: McKinsey Productivity Sciences Center. Available at:

<https://www.mckinsey.com/~/media/mckinsey/our%20people/matteo%20mancini/understanding_asean_the_manufacturing_opportunity.ashx> [Accessed on: 2 April 2020].

Transparency International. 2019. *Corruption Perceptions Index* [online]. Berlin: Transparency International. Available at: <https://www.transparency.org/research/cpi/cpi_2009/0#results> [Accessed on 12 November 2019].

Trump, D.J. 2017. *Presidential Memorandum Regarding Withdrawal of the United States from the Trans-Pacific Partnership Negotiations and Agreement* [online]. Washington DC: The White House. Available at: <https://www.whitehouse.gov/presidential-actions/presidential-memorandum-regarding-withdrawal-united-states-trans-pacific-partnership-negotiations-agreement/> [Accessed on 5 October 2017].

Tsuyoshi, S., Makoto, T. & Mitsuyoshi, Y. 2019. International trade and capital accumulation in an overlapping generations model with a public intermediate good, *Review of International Economics*, 27(3): 765-785.

Tullock, G. 1967. The Welfare Cost of Tariffs, Monopoly and Theft, *Economic Inquiry*, 5(3):224-232.

UN Economic Commission for Africa (UNECA). 2014. *Economic Report on Africa 2014: dynamic industrial policy in Africa*. Addis Ababa: UNECA.

Un, L. 2012. A comparative study of education and development in Cambodia and Uganda from their civil wars to the present. PhD Thesis. University of Amsterdam: Amsterdam. Available at: <https://pure.uva.nl/ws/files/1739827/105671_thesis.pdf> [Accessed on: 19 April 2020].

United Nations (UN). 1985. *World Economic Survey 1985; Current Trends and Policies in the World Economy*. New York: United Nations. Available at <https://www.un.org/en/development/desa/policy/wess/wess_archive/searchable_archive/1985wes.pdf> [Accessed on: 6 May 2020].

United Nations (UN). 2015. Country Analysis Report: Lao PDR. Vientiane: The United Nations in Lao PDR. Available at: <https://www.undp.org/content/dam/laopdr/docs/Reports%20and%20publications/2015/Country%20Analysis%20Report%20Lao%20PDR%202015.pdf> [Accessed on: 2 April 2020].

United Nations Conference on Trade and Development (UNCTAD). 2015. *Policy Brief No. 34, July 2015. Making Regional Trade Work for Africa: Turning Words into Deeds*. Geneva: UNCTAD.

United Nations Conference on Trade and Development (UNCTAD). 2016. *Nairobi Maafikiano From decision to action: Moving towards an inclusive and equitable economic environment for trade and development*. Nairobi: UNCTAD.

United Nations Conference on Trade and Development (UNCTAD). 2017. *High-level dialogue: Is the world integrating or disintegrating? Note by the UNCTAD Secretariat. UNCTAD Trade and Development Board sixty-fourth session*. Geneva: UNCTAD.

United Nations Conference on Trade and Development (UNCTAD). 2019. *International Classification of Non-Tariff Measures; 2019 Version*. Geneva: UNCTAD. Available at: <https://unctad.org/en/PublicationsLibrary/ditctab2019d5_en.pdf> [Accessed on 30 April 2020].

United Nations Economic Commission for Africa (UNECA) 2011. *Economic Report on Africa 2011*. Addis Ababa: UNECA.

United Nations Development Programme (UNDP). 2011. *Trade and Human Development: A Practical Guide to Mainstreaming Trade*. Geneva: UNDP.

United Nations Development Program (UNDP). 2019a. Human Development Report 2019. New York: UNDP.

United Nations Development Programme (UNDP). 2019b. *Human Development Reports: Human Development Index* [online]. n.p.: UNDP. Available at: <http://hdr.undp.org/en/content/human-development-index-hdi> [Accessed on: 20 April 2020].

United Nations Office on Drugs and Crime (UNODC). 2019. *Myanmar opium cultivation continues to drop as regional drug market changes: UNODC report* [online]. Vienna: UNODC. Available at: <https://www.unodc.org/unodc/en/frontpage/2019/January/myanmar-opium-cultivation-continues-to-drop-as-regional-drug-market-changes_-unodc-report.html> [Accessed on: 9 May 2020].

Van Arkadie, B. and Do, D.D. 2004. *Economic reform in Tanzania and Vietnam: a comparative commentary', Working Paper 706*. Ann Arbor, MI: William Davidson Institute. Available at: <https://deepblue.lib.umich.edu/bitstream/handle/2027.42/40092/wp706.pdf?sequence=3&isAllowed=y> [Accessed on: 16 April 2020].

Van de Walle, N. 2001. *African Economies and the Politics of Permanent Crisis*, 1979-1999, Cambridge: Cambridge University Press.

Van der Veen, R. 2004. *What Went Wrong with Africa? A Contemporary History*. Amsterdam: KIT Publishers.

Van Donge, J.K., Henley, D. & Lewis, P. 2012. Tracking development in Southeast Asia and Sub-Saharan Africa: the primacy of policy, *Development Policy Review*, 30: 5-24.

Vitez, O. 2019. The Benefits of Free Trade for Developing Countries [online]. California: Chron / Hearst Newspapers LLC. Available at: <https://smallbusiness.chron.com/benefits-trade-developing-countries-3834.html>. [Accessed on: 26 April 2020].

Wade, R. 1990. *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization.* Princeton, NJ: Princeton University Press.

Wallerstein, I. 1986. *Africa and the Modern World*. Trenton, NJ: Africa World Press.

Wedeman, A. 2002. ‘Development and corruption: the East Asian paradox’. In: Gomez, E.T. ed. *Political Business in East Asia*. London: Routledge. 34-61.

Weisman, S.R. 2016. *The Moral Case for Globalization* [online]. Washington DC: Peterson Institute for International Economics. Available at: <https://www.piie.com/commentary/op-eds/moral-case-globalization> [Accessed on 5 May 2020].

Windmeijer, F. 2005. A Finite Sample Correction for the Variance of Linear Efficient Two-Step GMM Estimators, *Journal of Econometrics*, 126(1):25-51.

Wood, J. 2017. *What is ASEAN?* [online]. Cologny: World Economic Forum (WEF). Available at: <https://www.weforum.org/agenda/2017/05/what-is-asean-explainer/> [Accessed on: 11 May 2020].

World Bank. 1993. *The East Asian Miracle: Economic Growth and Public Policy.* Washington, DC: Oxford University Press. Available at: <http://documents.worldbank.org/curated/en/975081468244550798/pdf/multi-page.pdf> [Accessed on: 18 April 2020].

World Bank. 1998. *Asia: The Road to Recovery*. Washington, DC: World Bank. Available at: <http://documents.worldbank.org/curated/en/364021468770639382/pdf/multi-page.pdf> [Accessed on: 10 May 2020].

World Bank. 2018a. *Doing Business Indicators*. Washington, DC: World Bank. Available at: <worldbank.org/en/country/Singapore> [Assessed 2 April 2020].

World Bank. 2018b. *Stronger Open Trade Policies Enable Economic Growth for All* [online]. Washington, DC: World Bank. Available at: <Stronger Open Trade Policies Enable Economic Growth for All> [Accessed on: 8 May 2020].

World Bank. 2020a. Myanmar’s Growth Resilient despite Global Slowdown. Washington, DC: The World Bank Group. Available at: <https://www.worldbank.org/en/news/press-release/2020/01/15/myanmars-growth-resilient-despite-global-slowdown> [Accessed on: 2 April 2020].

World Bank. 2020b. *Regional Integration* [online]. Washington, DC: World Bank. Available at: <https://www.worldbank.org/en/topic/regional-integration/overview> [Accessed on: 10 May 2020].

World Bank, 2020c. *World Development Indicators* [online]. Washington, DC; World Bank. Available at: <https://databank.worldbank.org/source/world-development-indicators> [Accessed on: 10 March 2020].

World Intellectual Property Organization (WIPO). 2018. *Global Innovation Index 2018: Thailand*. Geneva: WIPO. Available at: <https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2018-profile49.pdf> [Accessed on: 2 April 2020].

World Trade Organization (WTO). 2008a. *World Trade Report 2008; Trade in a Globalizing World*. Geneva: WTO.

World Trade Organization (WTO). 2008b. Trade Policy Review: Brunei Darussalam. Geneva: WTO. Available at: <https://www.wto.org/english/tratop_e/tpr_e/tp296_e.htm> [Accessed on: 2 April 2020].

World Trade Organization (WTO). 2014. *World Trade Report 2014; Trade and development: recent trends and the role of the WTO*. Geneva: WTO.

Yesmin, S. 2019. *China's economic transformation under "New Normal"* [online]. n.p.: Modern Diplomacy. Available at: <https://moderndiplomacy.eu/md-premium/> [Accessed on: 6 May 2020]

APPENDIX 1: Raw Data for ASEAN Region

List of ASEAN Countries

Number	Country
1	Brunei
2	Cambodia
3	Indonesia
4	Lao PDR
5	Malaysia
6	Myanmar
7	Philippines
8	Singapore
9	Thailand
10	Vietnam

i	t	gdpc	gfcf	lfpr	nx	un_ILO	tech	hdi
1	2000	0.70238441685602	13.0579192709893	67.9660034179688	35.2806182191242	5.59999990463257	28.5143997718848	0.805
1	2001	0.668516263266412	14.4299930426804	67.7300033569335	34.8381594348847	5.63399982452393	42.0557944205579	0.806
1	2002	1.85085909906365	21.2597243612677	67.3649978637695	30.0462831993621	5.77199983596802	44.306509565087	0.809
1	2003	1.00749091564913	15.0554608019021	67.1559982299805	37.8825205941001	5.88100004196166	50.2033722717405	0.815
1	2004	-1.21254278698211	13.4864384432866	67.0869979858398	36.6115330751906	5.91499996185303	56.3259355707461	0.820
1	2005	-1.17447460689952	11.3667044608845	67.088996887207	42.3088889783222	5.86899995803833	63.788296258155	0.825
1	2006	2.94593038553322	10.437401924744	66.7919998168945	45.5892584015209	5.74300003051758	81.4015983233539	0.827
1	2007	-1.10134032413342	12.9848037489504	66.5469970703125	39.4227440214599	5.62400007247925	97.6459136186044	0.827
1	2008	-3.09135524702164	13.6680736742508	66.4069976806641	48.2099198431507	5.69700002670288	105.122541978436	0.828
1	2009	-2.91217600044139	17.5565135510816	66.3789978027344	37.0597078901685	6.42399978637695	107.547680942731	0.831
1	2010	1.34764938748842	23.6918138041734	66.4160003662109	36.5949373128642	6.65799999237061	111.953808864622	0.832
1	2011	2.4166421030224	26.0224005492855	66.3939971923828	34.7096739406741	6.71999979019165	112.566550161549	0.836
1	2012	-0.427894473886155	32.8824097802798	66.2929992675781	29.8382372349661	6.89699983596802	117.73256906832	0.843
1	2013	-3.44062744548282	39.590971332656	66.1370010375977	20.8813553629782	7.02899980545044	115.922269120545	0.844

1	2014	-3.62420517458962	27.4423456858509	65.9619979858398	30.7082045349756	6.96500015258789	110.319228638574	0.845
1	2015	-1.79814526014643	35.2458094273822	65.7839965820313	16.6789167866155	7.75600004196166	111.683823121808	0.843
1	2016	-3.60233301645837	34.6196545593091	65.5979995727539	12.8932404838903	8.55900001525879	124.691043353978	0.844
1	2017	0.213081517950215	34.8047146772393	65.3970031738281	16.3623037966033	9.31599998474121	128.331366188191	0.843
1	2018	-0.99478850862225	41.0658341074258	65.1460037231445	7.87147877202051	9.22399997711182	131.934222765134	0.845
2	2000	8.26389150471097	17.415246872852	78.6019973754883	-3.7002858341354	2.45000004768372	1.07399780456805	0.419
2	2001	5.27982534133977	18.6598630571515	83.2620010375977	-2.20577096842241	1.63999998569489	1.80129504809515	0.434
2	2002	4.61970168682326	18.1245153972534	82.6579971313477	-2.50481147083125	1.62800002098083	3.00686982714534	0.453
2	2003	6.66229775873592	20.0987602810434	81.8160018920898	-5.01128423995143	1.57299995422363	3.87664655465243	0.466
2	2004	8.56458798940518	16.2076093490475	80.5770034790039	-3.42672850671081	1.56200003623962	6.59321198404864	0.478
2	2005	11.4849155612387	18.4657001745559	81.5139999389648	-4.87829680780284	1.47000002861023	8.00099206274465	0.490
2	2006	9.09152338263721	22.5169764544121	82.4440002441406	-3.21486673197534	1.27900004386902	12.7740552938189	0.502
2	2007	8.58312320863396	21.1972913260018	83.3199996948242	-4.90008500218002	1.16799998283386	18.8839559642052	0.516
2	2008	5.12490466063622	18.6167278563201	84.1439971923828	-7.921003111384	1.15100002288818	30.5175069076741	0.521
2	2009	-1.4029991057775	21.3599103751347	84.7720031738281	-7.12772040217514	1.28100001811981	44.474074906603	0.524
2	2010	4.34457427422036	17.3676571968265	85.390998840332	-8.72579337346229	1.37699997425079	56.9497153899062	0.535
2	2011	5.38187244910158	17.0979145505676	84.5670013427734	-7.93727978793854	1.317999958992	94.6055967149845	0.542
2	2012	5.57786320621257	18.5113423140493	83.7070007324219	-8.53831846831291	1.27900004386902	129.2593245106	0.548
2	2013	5.59997282280331	20.0089169476891	82.8349990844727	-8.36812474126398	1.28400003910065	134.860017734202	0.555
2	2014	5.40178261075788	22.0945001882948	81.9509963989258	-8.46412876341733	1.23199999332428	133.89621907829	0.561
2	2015	5.33323300295301	22.4529981979056	81.0469970703125	-8.68368468173901	1.19599997997284	134.333852872891	0.566
2	2016	5.36873194174099	22.705832477717	81.0070037841797	-8.59660774318131	1.13100004196166	126.316974213087	0.572
2	2017	5.38988623294368	22.891967991337	80.9720001220703	-8.10258818965824	1.06200003623962	116.012858438435	0.578
2	2018	5.90774125002211	23.4482561758359	81.1269989013672	-12.1928110252098	1.04799997806549	119.491517183728	0.581
3	2000	3.48220912509996	22.2456969315568	67.2389984130859	4.84306452849134	6.0770001411438	1.73479300215759	0.604
3	2001	2.23518113461516	22.539266316067	66.3649978637695	4.30104853135351	6.08199977874756	3.04109758501638	0.610
3	2002	3.09063354317675	21.4040702075173	65.1780014038085	3.99852690784087	6.60400009155273	5.38282977505205	0.616
3	2003	3.37653613069604	25.5984983869787	64.7559967041016	3.45304287667862	6.65700006484985	8.39512304393961	0.623
3	2004	3.6309022681446	24.0563663747717	65.0350036621094	0.60856132991737	7.30299997329712	13.5864546008764	0.629
3	2005	4.28959523284378	25.0814099389568	63.9029998779297	0.0970882465692074	7.94500017166138	20.730072857566	0.633

3	2006	4.10751527485958	25.4002172943548	63.9739990234375	2.97870869087098	7.55100011825562	27.8229105887781	0.643
3	2007	4.94646542852382	24.9202838487256	66.1589965820313	2.42726412696792	8.06000041961669	40.1881374590373	0.644
3	2008	4.62003326662801	27.8162445798583	66.4759979248047	0.0246933252771075	7.20900011062622	59.7011870254492	0.648
3	2009	3.24732741363295	30.9851924139981	66.4649963378906	1.9697705622352	6.10599994659424	68.5929824916221	0.659
3	2010	4.81228178820898	32.8801214533558	66.984001159668	0.681277284375171	5.61399984359741	87.3698682380407	0.666
3	2011	4.74822060762054	32.9843332593045	67.1370010375977	0.18870395330258	5.15299987792969	101.913229756001	0.674
3	2012	4.6062842547838	35.0715936108881	67.6849975585938	-2.6602736040667	4.46799993515015	113.488311825828	0.682
3	2013	4.15127123410866	33.8313567879018	67.0820007324219	-3.18996482895809	4.33599996566772	124.392499003208	0.688
3	2014	3.63914313049396	34.6003439149803	66.9049987792969	-3.08816907630029	4.04899978637695	127.615440881544	0.691
3	2015	3.55543956624815	34.0627921803386	66.6289978027344	-2.0350419218361	4.51399993896484	131.180458535595	0.696
3	2016	3.75969380485401	33.858739303947	66.3379974365234	-1.81915089224046	4.30100011825562	147.415022537722	0.700
3	2017	3.8399824200488	33.7170780354103	67.1660003662109	-1.59496358766535	4.18499994277954	164.4405900008	0.704
3	2018	3.98560422637033	34.5697713823543	67.1240005493164	-2.97900823694024	4.30000019073486	119.338721930265	0.707
4	2000	4.0429084764592	13.4156579557784	80.0640029907227	-0.489256566270163	2.02500009536743	0.23819899693822	0.466
4	2001	4.07251369161538	13.5436071724261	79.8519973754883	-3.80683721990308	1.86300003528595	0.546160498167881	0.471
4	2002	4.30556528572359	29.0404231808259	79.6129989624023	0.47045153495805	1.8400000333786	1.00414217750306	0.480
4	2003	4.48085874955382	27.7715216252579	79.3519973754883	-1.46818009607216	1.68299996852875	2.01330908934412	0.488
4	2004	4.75040459875389	31.7542435096654	79.079002380371	-7.53199402229102	1.52900004386902	3.60620803757121	0.496
4	2005	5.4414974834895	34.0580868031263	78.8040008544922	-6.35287282087344	1.35000002384186	11.4319374039845	0.505
4	2006	6.86536410424603	30.0695410392115	78.6149978637695	2.18103408402247	1.08700001239777	17.2691108596983	0.511
4	2007	5.80732133116746	32.3122430332914	78.4339981079102	3.30114599696564	0.865000009536743	24.8683251729031	0.521
4	2008	6.0118611767835	31.6819857931432	78.2710037231445	1.42441277838683	0.740000009536743	33.4423694559936	0.428
4	2009	5.71836689646676	33.9384705522766	78.140998840332	-1.04417123611976	0.800000011920928	52.6075838443827	0.539
4	2010	6.78083030005759	27.462487740438	78.052001953125	0.411195997574834	0.708000004291534	64.0628788006078	0.546
4	2011	6.36380316742928	28.0678025250438	78.0449981689453	-2.3582147551137	0.702000021934509	86.3456974932285	0.558
4	2012	6.40076119727419	32.5042552768561	78.0660018920898	-7.31407775811966	0.689999997615814	66.7232521223425	0.569
4	2013	6.42812696029671	30.6473220372104	78.0920028686523	-7.83775320300616	0.716000020503998	70.5151755674404	0.579
4	2014	6.01633055533834	29.8013514001657	78.1190032958984	-14.5040541869301	0.695999979972839	69.5595741771234	0.586
4	2015	5.65639158224027	31.5566516038959	78.1320037841797	-15.7577433305949	0.680000007152557	55.2895909371141	0.594
4	2016	5.38631616022003	29.0076540958702	78.1179962158203	-8.76104729682374	0.647000014781952	57.8235326941331	0.598

4	2017	5.24466005201214	29.647026685015	78.1070022583008	-7.47519518555034	0.602999985218048	53.3840689713197	0.602
4	2018	4.61588222048861	30.3004920134898	78.2129974365234	-7.96697054674776	0.609000027179718	51.8633770383574	0.604
5	2000	6.35750270856816	26.8674891484592	61.6759986877441	9.04991849068885	3	22.0819662384529	0.724
5	2001	-1.66514435220596	24.398219973396	61.5979995727539	7.85355934414698	3.52999997138977	31.1483526654871	0.722
5	2002	3.2174126359255	24.7773431485884	61.4379997253417	7.12945542035369	3.48000001907349	37.3961243438277	0.724
5	2003	3.68792750610802	22.7633850643195	61.3009986877441	12.1423505560344	3.60999989509583	45.038590711564	0.731
5	2004	4.69855249426413	23.0495646010531	61.1790008544922	12.0877738119346	3.53999996185303	58.0016745894469	0.734
5	2005	3.28229490990486	22.3964178094036	61.1310005187988	13.9199994956448	3.52999997138977	76.0783774274578	0.732
5	2006	3.52428330120016	22.7035242231695	60.9490013122559	16.1038231952322	3.3199999332428	74.2834553490099	0.738
5	2007	4.23645493230018	23.4095349745995	60.7299995422363	15.3812595680627	3.23000001907349	87.3752870937042	0.751
5	2008	2.84707967590904	21.4583043811993	60.1559982299805	16.8596299170767	3.33999991416931	101.751336080628	0.762
5	2009	-3.28558665389247	17.8356949570531	60.4080009460449	15.722997143133	3.69000005722046	108.685619346502	0.766
5	2010	5.62353738013289	23.3865410976414	60.3190002441406	10.0557184346893	3.25	120.032111417899	0.773
5	2011	3.66615628289205	23.1882579658738	61.3950004577637	10.9049912767471	3.04999995231628	127.958369561033	0.779
5	2012	3.95963465584536	25.7486213670602	62.3530006408691	5.18877827000898	3.03999996185303	142.164687315058	0.782
5	2013	3.27011405523191	25.9371066959614	63.798999786377	3.46613363614787	3.10999989509583	145.933395665664	0.787
5	2014	4.59519358369842	24.9776084262813	64.0859985351563	4.39164533437125	2.88000011444092	150.430901030157	0.792
5	2015	3.6875522711987	25.4242141279809	64.3379974365234	3.00892360195384	3.09999990463257	145.697384840297	0.797
5	2016	3.04105536005241	25.9954805080908	64.3440017700195	2.36769047039565	3.44000005722046	141.648981930837	0.801
5	2017	4.31327421237684	25.5595458893244	64.4029998779297	2.80919895028417	3.41000008583069	136.116321658186	0.802
5	2018	3.3345011012496	23.6137738663113	64.5950012207031	2.11673272810613	3.35999989509583	134.525994691772	0.804
6	2000	12.4345718189168	23.2177795893507	71.9769973754883	-2.35956987604124	1.22300004959106	0.0286752691332507	0.424
6	2001	10.1523564418314	22.8284259903382	71.5859985351563	-2.34635994742259	1.20299994945526	0.048006230582368	0.432
6	2002	10.905189513936	22.4456017075542	71.1740036010742	1.41024552018482	1.23699998855591	0.100586616906807	0.441
6	2003	12.7877393128682	22.0691972467742	70.693000793457	-0.182395916009129	1.20799994468689	0.138148529326795	0.451
6	2004	12.5928520691399	21.6991049499514	70.2119979858398	1.04340168282983	1.1360000371933	0.19036957131059	0.460
6	2005	12.6746888559272	21.3352189644246	69.7170028686523	4.85379033880321	1.06500005722046	0.262921756528161	0.470
6	2006	12.2707643903484	20.9774352126429	69.213996887207	5.47410687810815	0.945999979972839	0.434501902089306	0.479
6	2007	11.2682633545549	20.6256513623973	68.7389984130859	6.84128559608505	0.837000012397766	0.499060134750126	0.490
6	2008	9.57480688879929	15.6349638124866	68.3130035400391	3.91377460527001	0.787999987602234	0.735811404375781	0.501

6	2009	9.84441919138493	18.8664531280369	67.859001159668	2.67166530648619	0.908999979496002	0.999007629138311	0.512
6	2010	8.8751335662113	23.1822093203965	67.422996520996	3.17749475847855	0.910000026226044	1.17389406629751	0.523
6	2011	4.78428985744355	29.1875975591087	67.1419982910156	-2.60285417206877	0.894999980926514	2.43891734041971	0.534
6	2012	6.44943057184359	29.8802036939277	66.7949981689453	-2.10158998772926	0.870000004768372	7.25413014397873	0.541
6	2013	7.50854712806968	31.5157197972696	66.402000427246	-0.644739695622247	0.837999999523163	13.1765762817693	0.551
6	2014	7.10610606017521	31.7196750455138	66.0139999389648	-3.25326046835828	0.792999982833862	55.5257927839852	0.558
6	2015	6.18061781450116	34.5905104475229	65.6480026245117	-4.75422941898855	0.765999972820281	77.8153987475419	0.565
6	2016	5.13503947229263	33.1797335526042	63.9480018615723	-2.80771512363811	1.17599999904633	95.3647361992275	0.571
6	2017	6.08396011112933	32.7555783491497	62.2789993286133	-6.75019346167978	1.55099999904633	89.8171579488665	0.577
6	2018	5.55580423750402	31.6176974213917	62.0270004272461	-3.00100682005711	1.56400001049042	113.844491877609	0.584
7	2000	2.18110004792902	18.367597837697	62.5	-2.74972446165696	3.83100008964539	8.27569401406597	0.631
7	2001	0.722897615317919	22.1414290282739	62.3899993896484	-2.29471865028136	3.69799995422363	15.2613587814261	0.634
7	2002	1.4900842816286	24.4704647299704	62.1839981079102	-0.346617870296474	3.61700010299683	18.906104863577	0.639
7	2003	2.83851218089259	22.9804889146936	61.6189994812012	0.339656883856205	3.52699995040894	27.1029810960176	0.643
7	2004	4.60856149539832	21.611595161921	61.7080001831055	1.77845890635395	3.55299997329712	38.8804914033014	0.653
7	2005	2.81661754721381	21.5504067277509	61.8849983215332	1.93107825884972	3.79500007629395	40.2878556638334	0.656
7	2006	3.37202269161956	18.0090527229251	61.984001159668	5.69741991663302	4.05200004577637	48.7763764785395	0.657
7	2007	4.80785933327017	17.3373448372508	61.9360008239746	5.40435793766952	3.43400001525879	64.1401552983071	0.663
7	2008	2.43813131173943	19.2880581982789	61.8969993591309	0.0826779493891581	3.72000002861023	74.9347574609636	0.667
7	2009	-0.50677997512669	16.5915598459445	62.2830009460449	5.0186752907648	3.85800004005432	81.7911969722215	0.666
7	2010	5.85384668131135	20.5407242202506	62.2130012512207	3.59694026954539	3.60500001907349	88.4888659587995	0.672
7	2011	1.92077308000145	20.4662455688332	62.9220008850098	2.51746678446703	3.59200000762939	98.5557661631442	0.677
7	2012	4.88119440419004	18.2036398350894	62.4480018615723	2.77876864718207	3.50399994850159	104.902347938426	0.684
7	2013	5.26765306144958	20.0160163944942	62.1780014038086	4.1876364438466	3.49699997901917	103.997119292804	0.692
7	2014	4.41172803155578	20.5534499865011	62.8349990844727	3.77952101302412	3.59999990463257	110.757700719375	0.697
7	2015	4.40452766527382	21.2143571549559	62.5060005187988	2.48166691599831	3.02600002288818	115.399439202833	0.702
7	2016	5.28516994523318	24.411235899297	62.2029991149902	-0.393205614124088	2.70799994468689	115.852280606764	0.704
7	2017	5.14662857054604	25.1365973643644	59.7389984130859	-0.683301575497489	2.55200004577637	110.128136114879	0.709
7	2018	4.77073894578564	26.9384665076297	59.8390007019042	-2.63793511891551	2.51500010490417	126.19863927892	0.712
8	2000	7.16685251521103	35.1740359977879	64.6959991455078	11.071740811357	3.70000004768372	68.19280140764	0.818

8	2001	-3.70195596141771	27.6094317950146	64.677001953125	14.4327450081349	3.75999999046326	73.3748738394146	0.822
8	2002	2.97062287206538	25.0736127933875	63.7799987792969	14.877153458493	5.65000009536743	80.7178799240526	0.830
8	2003	6.08864197909895	17.2245248736318	63.7789993286133	24.3023194512822	5.92999982833862	86.6264250555491	0.839
8	2004	8.45324807542261	22.8924616706012	63.7470016479492	19.3108014562814	5.84000015258789	95.5349894774339	0.846
8	2005	4.86497635141849	21.506936250429	64.193000793457	23.2605192300734	5.59000015258789	102.787663511177	0.869
8	2006	5.64681383593391	22.3792634447668	64.7880020141602	26.892822810994	4.48000001907349	108.774192581158	0.872
8	2007	4.57355896167864	23.0659529090098	65.4039993286133	27.1432965101223	3.90000009536743	129.385864330597	0.879
8	2008	-3.41100882690543	30.1596763689779	66.4079971313477	15.0838513862031	3.96000003814697	134.318745074128	0.884
8	2009	-2.8535150558716	27.3701152111674	66.3669967651367	16.3928942358131	5.8600001335144	138.6216041754	0.885
8	2010	12.5143149370234	27.6582275190447	66.8759994506835	22.9332126634087	4.11999988555908	143.916438583622	0.909
8	2011	4.06973859963892	26.6919943455279	67.0510025024414	22.2188757911612	3.89000010490417	148.0782485719	0.914
8	2012	1.91794555760912	29.2629426703058	67.5739974975585	17.6436127432855	3.72000002861023	150.249298069309	0.920
8	2013	3.1314347328029	29.9795021855415	67.5220031738281	15.707187590209	3.85999989509583	154.721432294957	0.923
8	2014	2.56020719666732	29.4300082792766	68.2129974365234	17.9509218958808	3.74000000953674	146.658496250018	0.928
8	2015	1.67901880556312	25.353193018866	68.9000015258789	17.2150407631178	3.78999996185303	147.225969537309	0.929
8	2016	1.63508553108656	26.7251251446252	68.5899963378906	17.4993376155125	4.07999992370605	149.650649476071	0.933
8	2017	3.60794895341697	28.1627757430632	68.4700012207031	16.3723120904629	3.90700006484985	146.843724493219	0.934
8	2018	2.65615000756203	26.6102372985568	68.2910003662109	17.8692681849849	3.76799988746643	148.821562973784	0.935
9	2000	3.01527964640696	21.4825913473597	73.2236685840388	8.14899883227106	2.1969618119079	4.79663583158677	0.649
9	2001	3.370393089554	22.2825925086537	73.4449996948242	7.36844749133017	2.39000010490417	4.8544428047992	0.657
9	2002	2.48931139673481	23.1123853206718	73.6669998168945	4.24026281067494	2.59999990463257	11.8824292331304	0.665
9	2003	5.27096288886244	22.7441937694577	73.454002380371	3.46550653953316	1.82000005245209	27.2360522321787	0.674
9	2004	6.39096457598154	23.8293024458859	73.2669982910156	3.13356321346961	1.53999996185303	33.4886984893199	0.683
9	2005	5.56085499427724	25.6814553243611	73.3450012207031	1.59597531920602	1.50999999046326	41.4884590345526	0.693
9	2006	3.5174868262381	30.4207588533792	73.375	-4.03646236466941	1.35000002384186	46.5637611509286	0.694
9	2007	4.33576189634984	27.011608023422	72.8280029296875	1.04380672530891	1.22000002861023	60.9693417679574	0.710
9	2008	4.84639026792169	25.4959974359616	73.1419982910156	5.9266535755126	1.17999994754791	80.0428218719733	0.714
9	2009	1.19217489898379	28.2264262281841	73.1149978637695	0.319466043143198	1.17999994754791	92.9449112010729	0.718
9	2010	-1.18953834802838	20.6364218789861	72.8550033569335	7.87657444601681	1.03900003433228	98.6323175827109	0.721
9	2011	6.9884807078096	25.356640557668	71.697998046875	3.36732227150433	0.621999979019165	106.743463221713	0.729

9	2012	0.357024258504126	26.7914866806039	73.2350006103516	2.54217090999368	0.660000026226044	114.708011097658	0.733
9	2013	6.7407279707071	28.0241828782218	72.7710037231445	-1.23233709564906	0.579999983310699	125.319959345458	0.731
9	2014	2.22243301215208	27.4570849362943	70.6439971923828	-2.10153619561744	0.488999992609024	137.720542685473	0.739
9	2015	0.550265984732462	23.9190400883548	69.6949996948242	2.85828184276224	0.575999975204468	141.87285079712	0.746
9	2016	2.71997610557426	22.3557030454622	69.068000793457	6.91581979010719	0.597000002861022	149.811151242858	0.753
9	2017	2.97163312003508	20.9401803653547	68.0989990234375	10.5341838536677	0.688000023365021	173.505481438746	0.762
9	2018	3.66557394696842	22.836035040215	67.7929992675781	9.67989515941739	0.632000029087067	175.596494196415	0.765
10	2000	5.61863407832779	29.6099138223826	76.474998474121	3.54799694298148	2.25999999046326	0.986803822260358	0.578
10	2001	5.09852879360304	31.1727734549497	76.4260025024414	2.08657137294175	2.75999999046326	1.54961143820926	0.586
10	2002	5.2881733999659	33.2205344910613	76.3759994506835	-1.72255927072095	2.11999988555908	2.33323337962095	0.594
10	2003	5.90250760755725	35.444857957463	76.3059997558594	-4.88211705933559	2.25	3.33164620648702	0.603
10	2004	6.55097632247292	35.46533166878	76.2129974365234	-2.10663701040253	2.14000010490417	5.97138399621655	0.612
10	2005	6.55963535512021	33.7574028912441	76.1159973144531	-0.971989164919563	2.22499990463257	11.4432726881949	0.616
10	2006	5.98566940392919	34.5366510764767	76.0319976806641	-0.246704373698266	2.17400002479553	22.3269076364073	0.624
10	2007	6.12360729814239	39.5662708970146	75.9349975585938	-8.98165936412439	2.02600002288818	52.7092760254495	0.632
10	2008	4.65245943971411	36.4931217965814	75.8899993896484	-10.9179529896098	2.38000011444092	86.8151055200007	0.639
10	2009	4.37064375270167	37.1625554335215	75.8830032348633	-6.23310022814041	1.73699998855591	112.781536525201	0.650
10	2010	5.36418076533876	35.6938087743787	76.1869964599609	-3.68837700730549	1.1139999628067	126.830942660956	0.653
10	2011	5.15973579385422	29.7506367181317	76.4120025634766	0.174119062693354	0.999000012874603	143.261019464309	0.663
10	2012	4.15633378057983	27.2433235893424	76.6429977416992	6.0512128634238	1.02699995040894	146.626837379858	0.668
10	2013	4.31719104743868	26.6756169052374	77.5709991455078	4.52336666073797	1.25199997425079	136.343826961989	0.673
10	2014	4.87299904180681	26.8326723983813	77.7949981689453	5.02619019080434	1.25600004196166	148.448818765079	0.675
10	2015	5.57139034213074	27.676727733944	77.8450012207031	-1.05619348472475	1.85899996757507	129.83151518505	0.680
10	2016	5.12005124042108	26.5780582592839	77.3889999389648	0.30446787539923	1.85099995136261	128.790785458015	0.685
10	2017	5.73062827265277	26.5821143733239	77.4960021972656	-0.736884881932091	1.8860000371933	126.866129923338	0.690
10	2018	6.01808839754494	26.5330550389259	77.4250030517578	2.40580086998849	1.89100003242493	147.195273411973	0.693

Source: World Bank Indicators (World Bank, 2020c) and UN HDI (UNDP, 2019b)

APPENDIX 2: Raw Data for SADC Region

List of SADC Countries

Number	Country
1	Angola
2	Botswana
3	Congo DRC
4	Eswatini
5	Lesotho
6	Madagascar
7	Malawi
8	Mauritius
9	Mozambique
10	Namibia
11	South Africa
12	Tanzania
13	Zambia
14	Zimbabwe

*Comoros and Seychelles were not included because of data limitations.

i	t	gdpc	gfcf	lfpr	nx	un_ILO	tech	hdi
1	2000	-0.26794453749595	30.4932189762628	77.7210006713867	8.71506365625718	22.8850002288818	0.157397105896243	0.394
1	2001	0.822113704013972	30.4932189408191	77.7470016479492	-16.012978916934	23.1149997711182	0.442588771357638	0.404
1	2002	9.94376401877865	30.4931731253335	77.7969970703125	-0.981927016546037	23.8959999084473	0.799113349491025	0.419
1	2003	-0.4318505625521	30.4511106101187	77.7900009155273	-4.03958224542819	23.9249992370605	1.93140968239954	0.428
1	2004	7.18703552678508	30.8936687341035	77.7649993896484	2.89247684338395	23.6429996490479	3.94495297909255	0.44
1	2005	11.0308358027993	27.5565797901657	77.7200012207031	13.8970921801467	20.5319995880127	8.2903725207504	0.453
1	2006	7.58232901027749	23.3007709224417	77.724998474121	20.4078149120781	17.673999786377	15.1594789473159	0.466
1	2007	9.89001150552824	25.730579355956	77.7080001831055	16.2123883977719	14.6330003738403	23.7333166613754	0.482
1	2008	7.11687315081085	30.8040531755393	77.7160034179688	8.12554754936237	12.043999671936	31.219903506853	0.494
1	2009	-2.80863445702062	42.8208588143755	77.7649993896484	-10.7693887074464	10.6090002059937	36.0190094456048	0.508

1	2010	1.0791689367887	28.1973097641434	77.802001953125	8.95703976588897	9.08899974822998	40.2606009544513	0.51
1	2011	-0.220846531029494	26.4243536899122	77.8639984130859	11.7046899595455	7.36199998855591	49.8467733807925	0.525
1	2012	4.70645928027089	26.6675788564223	77.9000015258789	10.8089626800402	7.35900020599365	50.9205995507953	0.537
1	2013	1.29208564355177	26.1429693456408	77.9049987792969	5.95792428066991	7.4539999961853	51.0659203350459	0.547
1	2014	1.21983278506757	27.5004618720416	77.8889999389648	-2.57186260874095	7.42899990081787	52.158983265359	0.557
1	2015	-2.46871516936926	34.2024891287855	77.8479995727539	-8.8411388918829	7.27899980545044	49.7932229515871	0.565
1	2016	-5.81623671756851	27.2147084386719	77.8079986572266	-3.05090780260243	7.2810001373291	45.0762900524986	0.57
1	2017	-3.40990331461406	24.1303045822126	77.7369995117188	-0.518217605550058	7.13899993896484	44.6861071385139	0.576
1	2018	-5.28777959390334	26.5459662731673	77.6719970703125	7.00003535283809	7.25299978256226	43.1305188834963	0.574
2	2000	-0.0646763973303592	29.551080393757	58.9529991149902	9.41804487971773	15.8800001144409	13.5206841701078	0.578
2	2001	-1.62575936705628	29.888136618651	59.6510009765625	10.8424755023729	18.5400009155273	19.8404708248392	0.58
2	2002	4.20505291690256	30.1938052068805	60.4039993286133	4.84208664390618	21.2029991149902	19.4917173224642	0.576
2	2003	2.83089264971508	30.1430076912868	61.1920013427734	9.54245426833143	23.7999992370605	25.656048957621	0.583
2	2004	0.894957600975488	31.4797020138227	61.9809989929199	3.53678425939583	21.6840000152588	29.6138206892333	0.589
2	2005	2.60676909919752	27.1503419604228	62.75	16.0858602675021	19.8320007324219	31.3372738702824	0.598
2	2006	6.18999232804558	25.9046966444747	63.5309982299805	19.261256862234	17.7999992370605	44.831767169161	0.612
2	2007	5.99334715530513	30.7923643734456	63.4080009460449	15.1230363758021	16.628999710083	61.4122196219699	0.625
2	2008	4.01696859961793	36.1871085511289	63.2869987487792	1.36618312388584	15.9300003051758	77.5611166822141	0.638
2	2009	-9.44201829951886	38.9302334000831	63.173999786377	-6.3131815263709	16.1690006256104	95.9356497933451	0.647
2	2010	6.72754458970827	41.4120723617572	60.2729988098145	-6.29005006312521	17.8600006103516	118.937398879274	0.66
2	2011	4.55935822956552	38.5754790967923	64.5449981689453	-0.720366363297084	17.7700004577637	143.904866669346	0.676
2	2012	3.21936951496281	38.8397988894201	68.1669998168945	-5.60795882908568	17.9130001068115	151.097886010485	0.687
2	2013	10.1026077984442	29.4090761345304	71.2689971923828	4.46651989003808	18.2859992980957	157.416312250672	0.699
2	2014	2.84890352119996	28.1991243126301	71.4449996948242	10.6711233962936	18.2229995727539	163.290127730394	0.709
2	2015	-3.18599697312145	32.6031398070602	71.6750030517578	2.20349649509555	17.9559993743896	163.875172347452	0.714
2	2016	2.40941657953462	28.5703349033283	71.8310012817383	7.75185399485217	17.9489994049072	152.273016634358	0.719
2	2017	0.798912535362106	28.24326223195	71.995002746582	5.3376448238251	17.6310005187988	146.960155640612	0.724
2	2018	2.18307407293796	29.5077996086765	72.2900009155273	1.8546948751444	17.9409999847412	150.005589893473	0.728
3	2000	-9.25508466502153	14.4334963339406	71.6480026245117	-3.89236706909791	3.04800009727478	0.0318431949372886	0.333

3	2001	-4.77409108781383	6.70414075173646	71.6849975585938	-3.24794599003715	3.06399989128113	0.309734682303588	0.333
3	2002	-0.031202509992454	7.43579108293426	71.6809997558594	-2.71021539513828	3.09699988365173	1.12288207897446	0.34
3	2003	2.38760343244925	9.5245548433898	71.6589965820313	-2.26151158626887	3.06200003623962	2.42335623633219	0.349
3	2004	3.43317567233188	12.2569205489908	71.6259994506835	-1.88709527073121	2.93499994277954	3.75120409550757	0.357
3	2005	2.80881197582062	11.7799002304206	71.5960006713867	-3.24794599003715	2.84899997711182	5.01240985295068	0.364
3	2006	1.9848915991892	14.6463411498195	70.5780029296875	0.330752301339338	2.90400004386902	7.80421208321526	0.372
3	2007	2.84985232758437	13.7082842188379	69.5370025634766	3.14869892285605	2.98399996757507	11.2773048021628	0.382
3	2008	2.7838424645239	10.8571032366918	68.474998474121	-0.763068847417733	3.17000007629395	16.4499675929271	0.393
3	2009	-0.500573021050414	14.5634353995526	67.3939971923828	-6.02250920862764	3.66899991035461	15.1461536976008	0.4
3	2010	3.5988403230232	28.7813489373966	66.2949981689453	-10.0784949239754	3.94600009918213	18.3079962977427	0.416
3	2011	3.36641199280993	24.8921059222794	65.1709976196289	-4.95593928270912	4.2979998588562	23.436208737324	0.419
3	2012	3.57179013846071	14.328231277819	64.0240020751953	-4.3010010758846	4.4850001335144	29.1110700381148	0.423
3	2013	4.92756252279231	21.8424234410791	64.0009994506835	-9.51293594120967	4.42999982833862	39.5633015557561	0.429
3	2014	5.89588603436783	23.2234743392455	63.9589996337891	-4.79716159124456	4.16099977493286	50.2971968109456	0.441
3	2015	3.44260459785792	18.527120196276	63.9179992675781	-3.91310448842874	4.17399978637695	49.5153882748646	0.445
3	2016	-0.907723406654114	36.9994351981428	63.9070014953613	-4.05028951368052	4.29500007629395	36.6666291403381	0.453
3	2017	0.401471108096672	24.987678381753	63.8549995422363	-3.26525011803012	4.10200023651123	43.45919306588	0.456
3	2018	2.39991066397216	25.8320046561741	63.6160011291504	-4.59279707301457	4.15500020980834	43.3822150190136	0.459
4	2000	0.613767121414185	23.545477486977	48.9790000915527	-2.63873186477366	24.9090003967285	3.28216145250563	0.468
4	2001	0.239833681475957	23.6979085083254	48.9710006713867	0.583532046366586	25.4419994354248	5.42615545047449	0.457
4	2002	3.8218667980662	21.4165634043271	48.9550018310547	2.31849426624675	26.5069999694824	6.67282267268136	0.445
4	2003	3.50005827826243	19.2938528122456	48.9700012207031	4.06809515150563	27.3279991149902	8.31050389029353	0.44
4	2004	3.27213544269442	19.3761729063584	49.023998260498	2.57392749276129	27.6909999847412	14.1286152203187	0.448
4	2005	5.55722577464999	17.3558286168983	49.1069984436035	-3.22976902808611	28.2469997406006	19.4065665999404	0.459
4	2006	5.42818709231673	16.4776545308755	49.1699981689453	-5.97397168690118	28.2830009460449	24.1291313898766	0.472
4	2007	3.77830510448382	16.0430023304324	49.3050003051758	-1.88917786662435	28.2399997711182	36.4455254485677	0.482
4	2008	0.121348732162588	15.7015019586396	49.5219993591309	-7.01971758617161	27.2959995269775	50.6353189928996	0.491
4	2009	0.84259395943873	15.3843131892768	49.7770004272461	-11.5716475429654	27.753999710083	62.8324099002617	0.501
4	2010	3.07537247364714	14.4850915274574	50.0509986877441	-8.74811595045713	27.3090000152588	68.1608546660193	0.513

4	2011	1.56099227645015	12.8987675972834	50.4109992980957	-5.84417765441209	26.6760005950928	71.5033958842685	0.528
4	2012	4.68276864861086	11.8242436359997	50.7799987792969	4.91007801163764	25.9839992523193	74.5862086857261	0.542
4	2013	3.14067096197246	12.2208616592081	51.1520004272461	10.5926444536101	25.4130001068115	82.1645812688677	0.558
4	2014	0.159172779992133	12.5969126479241	51.5559997558594	11.5796210193741	24.4950008392333	83.7245746420838	0.573
4	2015	1.47629849505751	12.4711749395652	51.9589996337891	13.0928745250679	23.6429996490479	85.232110314444	0.585
4	2016	0.364686672930702	12.7571825859114	52.3419990539551	7.74398289199811	22.7180004119873	89.318014321403	0.596
4	2017	1.04812008898153	12.7016225474499	52.7109985351563	6.90619399475744	22.3400001525879	93.5273225136801	0.603
4	2018	1.32064533880811	13.0558967358833	52.9939994812012	1.91589054321234	22.4769992828369	47.2949471063366	0.608
5	2000	3.20752125768331	24.3735560608314	73.6100006103516	-8.58521461999786	36.1469993591309	1.06257169899311	0.444
5	2001	3.41222283979864	23.7709479058694	72.947998046875	2.52300571036881	35.3059997558594	2.7999646320257	0.445
5	2002	1.01715061723829	23.18323854481	72.2900009155273	6.60509598834	34.8440017700195	6.79628678080764	0.44
5	2003	5.15454579939203	22.6100596221011	71.6389999389648	3.8395732813918	34.0740013122559	6.24025192880514	0.438
5	2004	2.32140547313668	22.0510518893578	70.995002746582	6.66638263291329	32.9729995727539	9.78159865200355	0.433
5	2005	3.97544114736164	21.5058649801987	70.3560028076172	9.85146839587141	31.9209995269775	12.5136139519086	0.43
5	2006	4.55353232414882	20.9741571906486	69.7900009155273	15.7379918531222	30.2709999084473	17.9861292230566	0.431
5	2007	4.99214514747534	23.7709479058694	69.2399978637695	21.7460195054468	28.681999206543	24.2815269044281	0.441
5	2008	6.72841450059293	27.3920644327901	68.7080001831055	19.6035358965337	27.4300003051758	29.8529184567283	0.446
5	2009	2.00021434750354	29.1600616996605	68.1829986572266	3.11232973056633	27.6569995880127	33.2138939597444	0.455
5	2010	6.13897662176677	28.3095316065723	67.6579971313477	-6.61150857716511	27.1940002441406	49.4817298821747	0.461
5	2011	6.1933566891953	22.634289097188	67.1579971313477	-7.55137509507755	26.4389991760254	61.5012166955786	0.47
5	2012	5.31113267912224	32.0422575950518	66.6650009155273	-14.0835760785197	25.30299949646	76.6659851096331	0.48
5	2013	1.47440416746511	29.5883432170463	66.193000793457	-6.61742413854663	24.5799999237061	88.2557812800402	0.486
5	2014	2.0666774982414	31.426849808886	66.2720031738281	-4.69708530147845	24.3320007324219	104.665846156858	0.493
5	2015	1.94004376885933	28.7290945003398	66.4029998779297	-3.39065626787775	24.2980003356934	103.939736408711	0.499
5	2016	2.42364652373128	28.0188006643737	66.6050033569335	-6.91666851773024	24.1650009155273	110.018505756543	0.507
5	2017	-3.04405636082056	24.332630081474	66.8239974975585	-4.4651363621385	23.613000869751	113.830518652817	0.514
5	2018	0.33207349060136	22.0439421721536	66.9660034179688	-0.147673360399869	23.5960006713867	113.040829826277	0.518
6	2000	1.54230950995915	15.0449648011922	86.5609970092773	-6.71734065693703	5.80000019073486	0.400169825137698	0.456
6	2001	2.79622778728768	18.4997024435816	86.5899963378906	-3.09220114997813	5.34999990463257	0.907082078690201	0.462

6	2002	-15.2999890824763	14.262926550795	86.6600036621094	-10.8483413038959	4.94500017166138	0.972316506947133	0.457
6	2003	6.51898502443937	17.8929910583068	86.6529998779297	-5.99100822597874	4.46999979019165	1.64166725649151	0.466
6	2004	2.15979964017592	23.3786003898801	86.6480026245117	-9.14310826421404	3.20199990272522	1.87545950830638	0.472
6	2005	1.55822350114838	22.1949757653902	86.6330032348633	-14.5697947173462	2.35999989509583	2.78277079373611	0.479
6	2006	1.99910596412076	25.2912852625087	87.2350006103516	-10.6154986469266	2.51999998092651	5.53958208964078	0.484
6	2007	3.21597259342623	26.5179313402668	87.7819976806641	-11.4927102020658	2.55599999427795	11.411267021483	0.491
6	2008	3.70844627911401	38.7460962157139	88.2710037231445	-15.9145801648544	2.67300009727478	24.1804592239841	0.5
6	2009	-6.65194035071166	37.2218957028862	88.6969985961914	-18.3949901618408	3.51300001144409	30.5496779467976	0.503
6	2010	-2.15184662828067	27.0273897312419	89.052001953125	-9.18280805833739	4.28000020980834	36.4592107278679	0.504
6	2011	-1.18866898787051	23.3511667285	88.7330017089844	-6.71354640201403	2.06299996376038	39.9226691247278	0.504
6	2012	0.233006170645837	20.1689187860375	88.3470001220703	-7.58196760910371	0.598999977111816	39.2837493055445	0.507
6	2013	-0.437934209231756	16.512913250912	87.8399963378906	-5.53390916826452	0.935000002384186	36.8495537373719	0.509
6	2014	0.585373193908652	16.4906896466942	87.2409973144531	-0.922528162153318	1.33399999141693	41.1781649832335	0.514
6	2015	0.390790756551837	15.9918879280206	86.5370025634766	-2.47737510718675	1.79999995231628	44.1269545608648	0.515
6	2016	1.23485915756214	16.3659933897898	86.422996520996	0.17289325892566	1.75499999523163	32.1287624470915	0.518
6	2017	1.1850064142388	15.8063768976943	86.3280029296875	-0.495764742247736	1.6690000295639	34.142840002578	0.521
6	2018	1.81024820355464	19.6148413857567	86.4100036621094	0.578357142415403	1.65900003910065	40.5703412338433	0.521
7	2000	-1.10652178981513	13.5646985794757	77.3850021362305	-4.21542816684767	8.4040002822876	0.439510840579731	0.362
7	2001	-7.32932715039497	14.8965295316285	77.3450012207031	-3.4926192839283	8.3149995803833	0.487491252624213	0.362
7	2002	-0.745454184461281	12.3035963814326	77.2710037231445	-5.74104430438141	8.30700016021729	0.734586547812879	0.363
7	2003	3.18180561407293	12.9223403659425	77.1880035400391	-7.75923924733268	8.22500038146973	1.12593301717699	0.367
7	2004	2.83545055901477	13.7546861770147	77.1269989013672	-10.9027531804216	8.0939998626709	1.80570578152631	0.368
7	2005	0.6177700974348	17.0947537680302	77.099998474121	-13.8600586676331	7.80000019073486	3.33569302338548	0.373
7	2006	1.8936214181724	20.0140416855367	77.1330032348633	-7.66803102741638	7.0939998626709	4.78015560558327	0.383
7	2007	6.57608201122382	23.069128072365	77.1809997558594	-9.4300518078512	6.46199989318848	7.87638495118277	0.394
7	2008	4.6124703746286	23.2291205433028	77.2360000610352	-13.0309958428934	6.17999982833862	10.9826346219266	0.411
7	2009	5.2590647384723	24.462885323879	77.2890014648438	-8.78093260760453	6.42999982833862	17.5935640570195	0.426
7	2010	3.84963262923304	22.8231860924044	77.3359985351563	-13.9271726367075	6.32399988174438	21.4404896086636	0.437
7	2011	1.89318713235363	12.4247740298105	77.402000427246	-14.2018049090532	6.3730001449585	26.410517497025	0.447

7	2012	-0.985564538460054	12.0494054442508	77.4530029296875	-12.3525156048669	6.17700004577637	30.182446561659	0.452
7	2013	2.2559643361497	12.7024580393953	77.4899978637695	-22.3991404780105	5.94600009918213	33.3982478755671	0.463
7	2014	2.77826957420204	11.9855600999476	77.3850021362305	-18.6602852862373	5.87599992752075	34.5774641316102	0.472
7	2015	0.00205502305720984	12.2216244181233	77.3199996948242	-14.5961427656718	5.78599977493286	39.2152175448841	0.475
7	2016	-0.255885678311458	10.7802797933837	77.2419967651367	-19.3780573206467	5.71199989318848	41.7220290933105	0.478
7	2017	1.26339856039046	13.4322200241966	77.2119979858398	-22.4352920887448	5.46799993515015	43.9865126566791	0.482
7	2018	0.801419696455682	14.1602182798732	77.3379974365234	-20.19150949694	5.42999982833862	39.0057948378173	0.485
8	2000	7.14471598141753	25.98179760586	58.9819984436035	-0.792151386243883	9.27700042724609	15.1880149686325	0.674
8	2001	2.5342628365631	20.730811609862	58.9029998779297	5.98402616367877	9.13899993896484	22.8169964913809	0.683
8	2002	0.911910202973161	22.0519165122427	58.7960014343262	5.15123347598644	8.20499992370605	28.9173348244151	0.688
8	2003	5.16167044675493	23.679245218727	58.640998840332	1.60192267271418	8.35999965667725	38.2470880748788	0.697
8	2004	3.67780931916661	24.3928710620397	58.4179992675781	-1.69921112297628	8.33699989318848	45.0567872880708	0.705
8	2005	1.1766991035457	22.6680423756606	58.882999420166	-4.99250942968665	9.52400016784667	53.7501135430928	0.713
8	2006	4.37758680430234	21.0242365953246	58.6259994506836	-8.59904946642481	9.03999996185303	62.8940573525209	0.72
8	2007	5.24649694808031	25.9851652162328	57.7439994812012	-5.32426463286704	8.47500038146973	75.2597680990754	0.728
8	2008	5.00653908318569	25.3459933721249	57.6990013122559	-9.76704662749417	7.17000007629395	83.3802698702938	0.734
8	2009	3.04110045385639	23.7657494618791	57.6290016174316	-7.1747497411416	7.25699996948242	87.3597960113859	0.742
8	2010	4.1291988641932	27.1050828524762	58.3250007629395	-10.0540447638357	7.65399980545044	95.4281204049826	0.748
8	2011	3.9110012482051	23.9466863452564	57.4770011901855	-13.5461524496587	7.44700002670288	103.438629024523	0.756
8	2012	3.2094994517465	24.3805683257093	57.673999786377	-7.09173348916657	7.47200012207031	118.533244833616	0.68
8	2013	3.13285197547427	22.032132374858	58.6940002441406	-6.18547070960585	7.32200002670288	122.155207845461	0.775
8	2014	3.55690427086847	19.6757145553509	58.9900016784667	-5.38941438817861	7.46700000762939	131.386919366448	0.786
8	2015	3.41602397332954	18.0910627895573	59.3289985656738	-3.56632038731312	7.40999984741211	139.925491640835	0.786
8	2016	3.76659645807264	17.900934987867	58.6529998779297	-4.01678297353813	6.81300020217896	143.755473049811	0.79
8	2017	3.72056764808697	18.2751131340483	58.4099998474121	-4.61732540297839	6.7519998550415	145.472633825729	0.793
8	2018	3.71722856647342	19.1213924100473	58.1650009155273	-5.73349696938494	6.86700010299683	151.359114888513	0.796
9	2000	-1.48367976871955	43.8058538419435	85.3050003051758	-9.67013112931715	2.6489999294281	0.28830855050385	0.301
9	2001	8.95271506783834	34.6328314162913	85.5139999389648	-8.9354100945747	2.89299988746643	0.837739755616981	0.314
9	2002	6.13208310759509	42.1139567668967	85.6370010375977	-8.25651198422429	2.95199990272522	1.35768970145472	0.32

9	2003	3.79049730992563	33.4532388781873	85.6859970092773	-7.62919546211204	3.13499999046326	2.25417591342448	0.334
9	2004	4.78869731268905	27.5810954403165	85.3420028686523	-7.04954144199419	3.40700006484985	3.55590342246664	0.343
9	2005	3.60235202145873	22.860241222761	84.9599990844727	-8.9354100945747	3.41400003433228	7.33848201357231	0.354
9	2006	6.65156626582113	21.6513029908195	84.547996520996	-8.25651198422429	3.29099988937378	11.0972713140491	0.361
9	2007	4.7829324416675	18.2326233667788	84.0910034179688	-7.54259460746085	3.1949999332428	14.2100221304391	0.372
9	2008	4.38359918448288	18.6554490000985	83.588996887207	-9.12311663829924	3.23900008201599	19.7741432308599	0.381
9	2009	3.44352291195256	14.6596806691654	83.0459976196289	-10.304301824178	3.73000001907349	26.079303909069	0.389
9	2010	3.60612955908299	17.9202213290747	82.4609985351563	-15.1469553204154	3.81599998474121	30.6999268302239	0.396
9	2011	4.49111441373786	28.8283592080852	81.8369979858398	-23.1467493955346	3.73399996757507	32.4768866092535	0.391
9	2012	4.34576820064608	49.5286560784876	81.1699981689453	-41.5268707674909	3.27999997138977	35.414491383546	0.398
9	2013	4.04237411124211	53.9879754211098	80.4560012817383	-36.84062766904	3.23399996757507	48.5169158735726	0.412
9	2014	4.43455939220347	52.8551262128883	79.6949996948242	-32.7224995554076	3.18400001525879	70.3131085062876	0.42
9	2015	3.74030376578392	41.2491267372007	78.8860015869141	-37.4137163012718	3.42600011825562	74.4579931618968	0.428
9	2016	0.884673466748737	46.6023251515367	78.797996520996	-32.2191519522801	3.38100004196166	53.990770658562	0.435
9	2017	0.775389933070514	33.186296512751	78.6969985961914	-19.5591904140017	3.17300009727478	41.4517035103961	0.442
9	2018	0.458309215545086	49.0257867856882	78.5250015258789	-30.5815984738425	3.17199993133545	47.7157787203989	0.446
10	2000	1.72103481630452	17.433741633992	56.4160003662109	4.9954035550191	20.2999992370605	4.56933718420726	0.543
10	2001	-0.436584831752114	22.770255865235	56.6730003356934	0.303177969606702	20.3980007171631	5.84534938300308	0.542
10	2002	3.21240810195947	19.0056236220835	56.8699989318848	2.62096493986345	21.3080005645752	8.10143865347608	0.54
10	2003	2.70907920914408	19.8495294035064	57.0139999389648	5.52147454372568	21.7560005187988	11.9029842207803	0.542
10	2004	10.5848088820967	19.4391654754587	57.117000579834	6.88680837313447	22.0900001525879	14.9965011047074	0.544
10	2005	0.91196929406712	20.0766416146731	57.193000793457	4.6813302458354	21.886999130249	23.1570122580379	0.544
10	2006	5.28092488858694	22.6699709284128	57.2910003662109	13.814379639109	21.1049995422363	30.8852406792008	0.55
10	2007	3.52563935895975	24.3640050079166	57.3600006103516	8.56672316574452	20.5389995574951	39.8835991176737	0.558
10	2008	0.797146712274582	27.8327931249552	57.4199981689453	-0.111842795087677	19.9890003204346	51.482973914967	0.566
10	2009	-1.51857185126606	26.4527310074123	57.5	-3.45414642604271	21.5370006561279	78.4018021723712	0.575
10	2010	4.14604362138419	24.1243005674323	57.6199989318848	-3.4544484615302	22.1000003814697	92.033410198058	0.588
10	2011	3.24811094905522	22.3754354062923	57.9129981994629	-6.85597969725527	19.6399993896484	101.752540225845	0.601
10	2012	3.23869440441418	26.7226689596707	58.2550010681152	-6.83558160323305	16.7709999084473	97.8152737651057	0.612

10	2013	3.78350531828858	25.0673827574819	61.1040000915527	-7.60169075262011	19.0279998779297	122.135806095165	0.622
10	2014	4.48420942966257	33.6032465195912	60.9519996643066	-9.16485760421505	18.5209999084473	117.487286791767	0.631
10	2015	4.1857243533242	33.8551587585902	60.548999786377	-13.4367709176243	20.8309993743896	110.147850623611	0.637
10	2016	-0.726735433970319	23.7796439501839	60.1129989624023	-15.5753819700709	23.3519992828369	112.803281024442	0.639
10	2017	-2.70651858440438	17.2688456220862	60.4029998779297	-4.11648607046316	23.0879993438721	111.55245099855	0.643
10	2018	-2.4008197720197	12.5683240694225	60.8330001831055	-2.44146138569888	23.0949993133545	112.702359718025	0.645
11	2000	2.74209071761899	16.3653251951763	56.109001159668	-0.139743928410842	30.2290000915527	18.5444185858883	0.629
11	2001	1.33979066059516	15.7445820078307	56.1800003051758	0.281973495776098	30.8959999084473	23.6706132025188	0.61
11	2002	2.39794255113945	16.2779674105474	56.0929985046387	0.874058942413965	33.4729995727539	29.6895534872734	0.618
11	2003	1.69682703239221	17.10588444718	54.4070014953613	-0.879608579933497	32.4560012817383	36.0879498011909	0.617
11	2004	3.28903250223969	18.4665957390614	52.7929992675781	-2.80578617406989	29.576000213623	44.0648986152089	0.618
11	2005	3.98201745708991	18.3149774226569	54.484001159668	-3.10949048751652	29.2530002593994	70.9263402938489	0.62
11	2006	4.27778333648354	20.1829944547135	55.5	-4.44546531824073	28.4890003204346	81.7950969508651	0.624
11	2007	4.00850044713503	20.9855217013305	54.8009986877441	-5.40093573436839	26.6660003662109	86.116057694827	0.631
11	2008	1.82348757549786	23.1501652763139	55.7760009765625	-5.72265589484928	22.4330005645752	90.3987107456405	0.644
11	2009	-2.89873093688664	20.704899394938	53.9980010986328	-2.67179591668238	23.5380001068115	91.9943536276346	0.654
11	2010	1.55107252579849	19.5129813370357	52.3610000610352	-1.46323382528446	24.693000793457	98.3502263039254	0.662
11	2011	1.72071428259082	19.7209480764517	52.3050003051758	-2.23784999371321	24.6529998779297	123.068036144698	0.663
11	2012	0.607949069116557	19.9659850439053	52.6609992980957	-5.1257298243901	24.7320003509521	129.454020655179	0.673
11	2013	0.852684803699063	21.1635569464482	53.2220001220703	-5.80106784294712	24.5690002441406	143.172657740392	0.683
11	2014	0.247278816490265	20.4994935066775	53.431999206543	-5.07945095510114	24.8980007171631	145.351387222096	0.691
11	2015	-0.341677246440881	20.9179571563037	54.648998260498	-4.58655810065503	25.1560001373291	158.882946772804	0.699
11	2016	-1.06086820384171	19.1609658963171	54.7169990539551	-2.81868670973016	26.5510005950928	146.622187308823	0.702
11	2017	-0.00313895407710163	18.8062134542037	55.5919990539551	-2.54979944985608	27.3269996643066	155.232395662244	0.704
11	2018	-0.572080196712221	17.9403799709432	55.5340003967285	-3.63411283247239	26.9580001831055	159.930664381157	0.705
12	2000	1.97869180172768	17.4567931160332	86.9729995727539	-3.20202378557693	3.15599989891052	0.329912553083389	0.395
12	2001	3.34261244375145	18.310495780814	86.9649963378906	-4.1503544972071	2.99399995803833	0.8013760076236	0.402

12	2002	4.22418782347678	18.0818764100938	87.3040008544922	-0.323734755107449	3.24699997901917	1.71745476440951	0.412
12	2003	3.73382271492508	20.6772752155327	87.620002746582	-1.14425962072423	3.35899996757507	3.57203970236819	0.421
12	2004	4.51253737552071	24.4851596817638	87.911003112793	-2.89867637073093	3.43799996376038	5.19532398369417	0.431
12	2005	4.48937963347433	27.3958979166088	88.1760025024414	-5.93812803175353	3.46600008010864	7.7086484585824	0.442
12	2006	3.57904661841472	30.3239644520795	88.4069976806641	-5.90926747995697	3.29900002479553	14.1825274851896	0.452
12	2007	3.80108114672286	32.651217345683	87.9550018310547	-7.8500875442373	2.69300007820129	20.2844473400064	0.461
12	2008	2.73103826050047	37.4895216954272	87.4599990844727	-9.22325603755894	2.35800004005432	31.0766244633959	0.47
12	2009	2.29318472920252	34.3556768715292	86.9189987182617	-6.22361084441094	2.5	40.5570723051958	0.479
12	2010	3.2902524588597	32.0172443067214	86.3310012817383	-6.90561244236868	3.03500008583069	47.3179194987657	0.487
12	2011	4.54980649989309	34.7360333034092	85.6969985961914	-12.6408336390404	3.47000002861023	56.1954924771277	0.492
12	2012	1.44255539068374	34.8444392827472	85.0059967041016	-9.49378455839862	3.24000000953674	57.8480981989895	0.501
12	2013	3.63800838842414	37.4699527538357	84.2509994506835	-10.9192131663606	2.9300000667572	56.6028298214829	0.503
12	2014	3.58137275797725	37.6539670885373	83.4240036010742	-10.1311294796353	2.125	63.7756169311229	0.509
12	2015	3.02598361300326	32.7586922016772	83.3970031738281	-8.39560658306942	2.12299990653992	77.0465644210544	0.519
12	2016	3.71371379774754	32.1747864989994	83.3710021972656	-5.3536118139375	2.09500002861023	75.484952373484	0.518
12	2017	3.64001088107275	34.0171624062867	83.3239974975585	-3.40185471997239	1.93900001049042	73.094789990234	0.522
12	2018	2.11505515987722	32.4667393503383	83.1940002441406	-3.25906723535847	1.932000041008	77.2413522328365	0.528
13	2000	1.15042295200891	29.8737459675261	79.3889999389648	-18.3978037691761	12.9300003051758	0.949054641614817	0.428
13	2001	2.59584747481449	29.8775200353029	79.4520034790039	-18.0006111186887	13.8100004196166	1.13353733887894	0.436
13	2002	1.84371410386997	29.8812945798724	79.4990005493164	-15.8142288212345	14.4910001754761	1.2677344928743	0.445
13	2003	4.23689668945006	29.8850696012951	79.5250015258789	-13.5300496003962	14.8249998092651	2.14093899096746	0.455
13	2004	4.30902147999423	29.888845099631	79.5410003662109	-7.14882570592272	15.2650003433228	4.02015749427608	0.464
13	2005	4.47150888306203	29.8926210749405	79.5459976196289	-2.78498414861087	15.8999996185303	8.00893402440081	0.475
13	2006	5.0915005765867	29.8963975272838	78.9860000610352	4.64474506229629	12.5	13.6634992985592	0.486
13	2007	5.49742705335912	29.9001744567211	78.4059982299805	-1.23802039926345	9.98700046539307	21.1072131890709	0.492
13	2008	4.87522641707783	29.9039518633128	77.8030014038085	-3.33057905300122	7.92999982833862	27.5440303287613	0.507
13	2009	6.19040201569013	29.9077297471192	77.1760025024414	5.95342818479562	10.6230001449585	33.3457105521175	0.521
13	2010	7.12978361443611	29.8775200353029	76.5230026245117	7.52549266863623	13.1899995803833	40.0337895443652	0.531
13	2011	2.42393403998302	33.6434788327889	75.9029998779297	4.65812078445884	10.1999998092651	58.2217414951491	0.541

13	2012	4.31037176214947	31.7545429961112	75.2679977416992	5.37891941974062	7.84999990463257	72.7588445332402	0.552
13	2013	1.81195754180546	34.0386108550491	75.2610015869141	-0.575786920335561	7.80100011825562	69.6464030789713	0.559
13	2014	1.47842443546141	34.0429110865812	75.2460021972656	-1.42658899344205	7.70699977874756	65.6818587372761	0.565
13	2015	-0.188631778933186	42.8050655165663	75.2330017089844	-3.61360966191732	7.44600009918213	72.7845723766844	0.57
13	2016	0.687321043284371	38.2062305065294	75.2279968261719	-4.55248288291018	7.37200021743774	73.4382304767122	0.58
13	2017	0.395739930554797	38.2110572498372	75.2160034179688	-3.89037433462698	7.20599985122681	79.7369096060729	0.589
13	2018	0.815169498674109	38.2158846029264	75.1859970092773	-1.28104866788837	7.20900011062622	89.1570443670444	0.591
14	2000	-3.53859548955766	13.5694238181719	79.3610000610352	-10.8796643211054	5.70300006866455	2.24249055904413	0.452
14	2001	1.0785935792275	10.2664734377554	80.1699981689453	-9.73444553098173	5.40500020980834	2.63338028100505	0.453
14	2002	-9.12552505538768	4.99999968464786	80.9449996948242	-8.70977513633643	5.24100017547607	2.83395333390774	0.444
14	2003	-17.188582976253	7.99999923178883	81.6849975585938	-7.79296393247102	4.86700010299683	3.03492072924025	0.43
14	2004	-6.10287511819499	4.50911485713514	82.3960037231445	-6.97265840990919	4.3899998664856	3.54199764524066	0.427
14	2005	-6.15444860014665	1.52517667801545	82.3789978027344	-6.23870015600873	4.28399991989136	5.35833508808988	0.425
14	2006	-4.0872586329543	1.57116139147759	82.4300003051758	-5.58200005628704	4.06699991226196	6.98569889114311	0.429
14	2007	-4.44283847045998	7.10975335916338	82.4800033569335	-4.99442573760791	4.16099977493286	10.000504246029	0.434
14	2008	-18.4911362678613	5.12790625311106	82.5279998779297	-4.46870085936051	4.44999980926514	13.3665693314029	0.432
14	2009	10.7012990752013	12.746801651552	82.5739974975585	-9.73444553098173	5.03399991989136	31.8592655461401	0.448
14	2010	18.0659668977904	18.7633009123198	82.6210021972656	-11.989241139029	5.12200021743774	60.640793628905	0.472
14	2011	12.4528571361864	17.3977660333253	82.7330017089844	-17.2447716494217	5.36800003051758	71.3492341823013	0.49
14	2012	14.701172623904	9.85697689349879	82.838996887207	-10.7272257103817	5.60799980163574	96.1783509910295	0.516
14	2013	0.192501098706813	9.20947911635942	82.9720001220703	-13.2298813058084	5.6230001449585	102.118247932099	0.527
14	2014	0.596198048811488	9.63922397841605	83.1009979248047	-12.3371008945515	5.518000125885	86.8396735132361	0.537
14	2015	0.100456019611102	10.035640419865	83.2109985351563	-8.4077599616852	5.43800020217896	92.3471053764817	0.544
14	2016	-0.793566445828347	9.86137059590222	83.3249969482422	-3.49397277499791	5.23899984359741	91.793458044575	0.549
14	2017	3.18639903369305	8.13488306540853	83.4100036621094	-1.34927800621721	4.94299983978271	98.9850733268734	0.553
14	2018	4.67202925903057	12.5589911469042	83.5449981689453	-12.78349110018	4.91499996185303	89.4048689080992	0.563

Source: World Bank Indicators (World Bank, 2020c) and UN HDI (UNDP, 2019b)